

# NEW YORK SCHOOL JOURNAL

AND  
Educational Directory.

Vol. XII. No. 336.

NEW YORK, JANUARY 19, 1878.

Price Seven Cents.

## TABLE OF CONTENTS.

Lessons in Electricity,	1
Teaching Power,	1
Influence of Character on Education,	1
Labor Schools in Europe,	1
The Value of Teaching,	1
English Titles,	1
The Ancient Ruins of Colorado,	1
Editorial,	1
Dr. Lambert,	1
New York City.—Board of Education,	1

Page 1

After brisk striking, present your knuckle to the knuckle of your friend. A spark will pass between you.

This experiment with the mackintosh further illustrates what you have already frequently observed, namely, that it is not friction alone, but the friction of special substances against each other, that produces electricity.

Thus we prove that non-electrics, like electrics, can be excited, the condition of success being, that an insulator shall be interposed between the non-electric and the earth. It is obvious that the old division into electrics and non-electrics really meant a division into insulators and conductors.

SEC. 8. *Discovery of Two Electrics.*—We have hitherto dealt almost exclusively with electric attractions, but in an experiment already referred to, Otto von Guericke observed the repulsion of a feather by his sulphur globe. I also anticipated matters in the use of our Dutch gold electroscope, where the repulsion of the leaves informed us of the arrival of the electricity.

Du Fay, who was the real discoverer here, found a gold-leaf floating in the air to be at first attracted and then repelled by the same excited body. He proved that when it was repelled by rubbed glass, it was attracted by rubbed resin, and that when it was repelled by rubbed resin, it was attracted by rubbed glass. Hence the important announcement, by Du Fay, that there are two kinds of electricity.

The electricity excited on the glass was for a time called "vitreous" electricity, while that excited on the sealing wax was called "resinous" electricity. These terms are, however, improper, because, by changing the rubber, we can obtain the electricity of sealing-wax upon glass, and the electricity of glass upon sealing-wax.

Roughen, for example, the surface of your glass tube, and rub it with flannel, the electricity of sealing-wax will be found upon the vitreous surface. Rub your sealing-wax with vulcanized India rubber, the electricity of glass will be found upon the resinous surface.

We now use the term "positive" electricity to denote that developed on glass by the friction of silk, and "negative" electricity to denote that developed on sealing-wax by the friction of flannel. These terms are adopted purely for the sake of convenience. There is no reason in nature why the resinous electricity should not be called positive, and the vitreous electricity negative. Once agreed, however, to apply the terms as here fixed, we must adhere to this agreement throughout.

SEC. 10. *Fundamental Law of Electric Action.*—In all the experiments which we have hitherto made, one of the substances has been electrified by friction, and the other not. But, once engaged in inquiries of this description, questions incessantly occur to the mind, the answering of which extends our knowledge and suggests other questions. Suppose, instead of exciting only one of the bodies presented to each other, we were to excite both of them, what would occur? This is the question which was asked and answered by Du Fay, and which we must answer for ourselves.

Here your wire loop (Fig. 1) comes again into play. Place an unrubbed gutta percha tube or a stick of sealing-wax in the loop, and be sure that it is unrubbed—that no electricity adheres to it from former experiments. If it fail to attract light bodies, it is unexcited; if it attract them, pass your hand over it several times, or, better still, pass it over or through the flame of a spirit lamp or candle. This will remove every trace of electricity. Attract the unrubbed gutta percha tube by a rubbed one.

Remove the unrubbed tube from the loop, and excite it with its flannel rubber. One end of the tube is held in your hand, and is therefore unexcited. Return the tube to the loop, keeping your eye upon the excited end. Bring a second rubbed tube near the excited end of the suspended one; strong repulsion is the consequence. Drive the suspended tube round and round by this force of repulsion.

Bring a rubbed glass tube near the excited end of the gutta percha tube; strong attraction is the result.

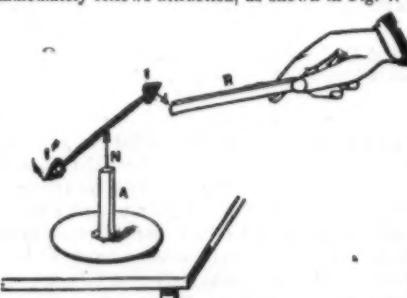
Repeat this experiment step by step with two glass tubes. Prove that the rubbed glass tube attracts the unrubbed one. Remove the unrubbed tube from the loop, excite it by its rubber, return it to the loop, and establish the repulsion of glass by glass. Bring rubbed gutta percha or sealing wax near the rubbed glass; strong attraction is the consequence.

These experiments lead us directly to the fundamental law of electric action, which is this: Bodies charged with the same electricity repel each other, while bodies charged with opposite electricities attract each other. Positive repels positive, and attracts negative. Negative repels negative, and attracts positive.

Devise experiments which shall still further illustrate this fundamental law. Repeat, for example, Otto von Guericke's experiment. Hang a feather by a silk thread, and bring your rubbed glass tube near it; the feather is attracted, touches the rod, charges itself with the electricity of the rod, and is then repelled. Cause it to retreat from the rod in various directions.

Hang your feather by a common thread; if no insulating substance intervenes between the feather and the earth, you can get no repulsion. Why? you ought to be able to answer. Obviously it is because the charge of positive electricity communicated by the rod is not retained by the feather, but passes away to the earth. Hence, you have not positive acting against positive at all. Why you should have the attraction of the neutral body by the electrified one will, as already stated, appear by-and-by.

Attract your straw needle by your rubbed glass rod. Let the straw strike the rod, so that the one shall rub against the other. The straw accepts the electricity of the rod, and repulsion immediately follows attraction, as shown in Fig. 7.



Mr. Cottrell has devised the simple electroscope represented in Fig. 8 to show repulsion. A is a stem of sealing wax, with a small circle of tin, T, at the top. W is a bent wire proceeding from T, with a small disk attached to it by wax. I' is a little straw index, supported by the needle, N, as shown in the figure. The stem, A, is not quite vertical, the object being to cause the bit of paper, I, to rest close to W, when the apparatus is not electrified. When electricity is imparted to T, it flows through the wires, W and w, over both disk and index; immediate repulsion of the straw is the consequence.

No better experiment can be made to illustrate the self-repulsive character of electricity than the following one: Heat your square board again, and warm, as before, your sheet of foolscap. Spread the paper upon the board, and excite it by the friction of India rubber. Cut from the sheet two long strips with your penknife. Hold the strips together at one end. Separate them from the board, and lift them into the air; they forcibly drive each other apart, producing a wide divergence.

Cut several strips, so as to form a kind of tassel. Hold them together at one end. Separate them from the board, and lift them into the air; they are driven asunder by the self-repelling electricity, presenting an appearance which may remind you of the hair of Medusa. The effect is represented in Fig. 9.

And now you must learn to determine with certainty the

## Lessons in Electricity.

BY PROF. TYNDALL, F. R. S.

II.

SEC. 8. *Electrics and Non-Electrics.*—For a long period, bodies were divided into electrics and non-electrics, the former deemed capable of being electrified, the latter not. Thus the amber of the ancients, and the spars, gems, fossils, stones, glasses and resins, operated on by Dr. Gilbert, were electrics, while all the metals were non-electrics. We must now determine the true meaning of this distinction.

Take in succession a ball of brass, of wood coated with tin-foil, a lead bullet and an apple, in the hand, and stroke them briskly with silk, flannel, or the fox's brush; none of them will attract the balanced lath (Fig. 4) or show any other symptom of electric excitement. All of them, therefore, would have been once called non-electrics.

But suspend them in succession by a string of silk held in the hand, and stroke them again; every one of them will now attract the lath.

Reflect upon the meaning of this experiment. We have introduced an insulator—the silk string—between the hand and the body struck, and we find that by its introduction the non-electric has been converted into an electric.

The meaning is obvious. When held in the hand, though electricity was developed in each case by the friction, it passed immediately through the hand and body to the earth. This transfer being prevented by the silk, the electricity, once excited, is retained, and the attraction of the lath is the consequence.

In like manner, a brass tube, held in the hand and struck with a fox's brush, shows no attractive power; but when a stick of sealing wax, ebonite, or gutta percha is thrust into the tube as a handle, the striking of the tube at once develops the power of attraction.

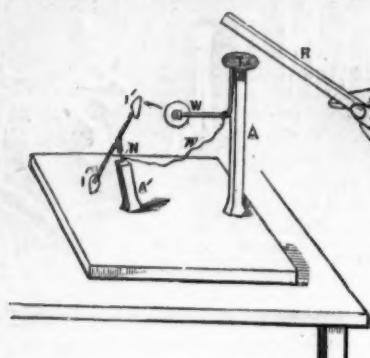
And now you see, more clearly than you did at first, the meaning of the experiment with the heated foolscap and India rubber. Paper and wood always imbibe a certain amount of moisture from the air. When the rubber was passed over the cold paper, electricity was excited, but the paper, being rendered a conductor by its moisture, allowed the electricity to pass away.

Prove all things. Lay your cold foolscap on a cold board, supported by warm dry tumblers, pass your India rubber over the paper; lift it by a loop of silk, for if you touch it it will discharge itself. You will find it electric: and with it you can charge your electroscope, or attract from a distance your balanced lath.

The human body was ranked among the non-electrics. Place upon the ground four warm glass tumblers, and upon the tumblers a board. Stand upon the board, and present your knuckle to the lath. A single stroke of the fox's fur, if skillfully given, will produce attraction. If you stand upon a cake of resin, of ebonite, or upon a sheet of good India rubber, the effect will be the same.

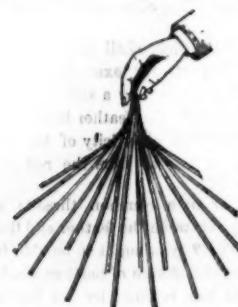
Throw a mackintosh over your shoulders, and let a friend strike it with the fox's brush, the attractive force is greatly augmented.

quality of electricity with which any body presented to you may be charged. You see immediately that attraction is no sure test, because unelectrified bodies are attracted. Further on you will be able to grapple with another possible source of error in the employment of attraction.



In determining quality, you must ascertain, by trial, the kind of electricity by which the charged body is repelled; if, for example, any electrified body repels, or is repelled by, sealing-wax rubbed with flannel, the electricity of the body is negative; if it repels, or is repelled by, glass, rubbed with silk, its electricity is positive. Du Fay had the sagacity to propose this mode of testing quality.

Apply this test to the strips of foolscap paper excited by the India rubber. Bring a rubbed gutta percha tube near the electrified strips, you have strong attraction. Bring a rubbed glass tube between the strips, you have strong repulsion and augmented divergence. Hence, the electricity, being repelled by the positive glass, is itself positive.



SEC. 11. Double or "Polar" Character of the Electric Force.—We have examined the action of each kind of electricity upon itself, and upon the other kind; but hitherto we have kept the rubber out of view. One of the questions which inevitably occur to the inquiring scientific mind would be, How is the rubber affected by the act of friction? Here, as elsewhere, you must examine the subject for yourself, and base your conclusions on the facts you establish.

Test your rubber, then, by your balanced lath. The lath is attracted by the flannel, which has rubbed against gutta percha; and it is attracted by the silk, which has rubbed against glass.

Regarding the quality of the electricity of the flannel or of the silk, the attraction of the lath teaches you nothing. But suspend your rubbed glass tube, and bring the flannel rubber near it; repulsion follows. The silk rubber, on the contrary, attracts the glass tube. Suspend your rubbed gutta percha tube, and bring the flannel rubber near it; repulsion follows. The silk rubber, on the contrary, attracts the glass tube. Suspend your rubbed gutta percha tube, and bring the silk rubber near it; repulsion follows. The flannel, on the contrary, attracts the tube.

The conclusion is obvious; the electricity of the flannel is positive, that of the silk is negative.

But the flannel is the rubber of the gutta percha, whose electricity is negative, and the silk is the rubber of the glass, whose electricity is positive. Consequently, we have not only proved the rubber to be electrified by the friction, but also proved the electricity of the rubber to be opposite in quality to that of the body rubbed.

SEC. 12. What is Electricity?—Thus far we have proceeded from fact to fact, acquiring knowledge of a very valuable kind. But facts alone cannot satisfy us. We seek a knowledge of the principles which lie behind the facts, and which are to be discerned by the mind alone. Thus, having spoken, as we have done, of electricity passing hither and thither, and of its being prevented from passing, hardly any thoughtful boy or girl can avoid asking, What is it that thus passes?—what is electricity? Boyle and Newton betrayed their need of an answer to this question when the one imagined his unctuous threads issuing from and returning to the electrified body, and when the other imagined that an elastic fluid existed which penetrated his rubbed glass.

When I say "imagined" I do not intend to represent the notions of these great men as vain fancies. Without imagina-

tion we can do nothing here. By imagination I mean the power of picturing mentally things which have an existence as real as that of the world around us, but which cannot be touched directly by the gross bodily organs of sense. I mean the purified scientific imagination, without the exercise of which we cannot take a single step into the region of causes and principles.

It was by the exercise of the scientific imagination that Franklin devised the theory of a single electric fluid to explain electrical phenomena. This fluid he supposed to be self-repulsive, and diffused in definite quantities through all bodies. He supposed that when a body has more than its proper share it is positively, when less than its proper share, it is negatively electrified. It was by the exercise of the same faculty that Symmer devised the theory of two electric fluids, each self-repulsive, but both mutually attractive.

At first sight Franklin's theory seems by far the simpler of the two. But its simplicity is only apparent. For though Franklin assumed only one fluid, he was obliged to assume three distinct actions. Two of these were the mutual repulsion of the electric particles among themselves, and the mutual attraction of the electric particles and the ponderable particles of the body through which the electricity is diffused. These two assumptions, moreover, when strictly followed out, lead to the unavoidable conclusion that the material particles must also mutually repel each other. Thus the theory is by no means so simple as it appears.

The theory of Symmer, though at first sight the most complicated, is in reality by far the simpler of the two. According to it, electrical actions are produced by two fluids, each self-repulsive, but both mutually attractive. These fluids cling to the atoms of matter, and carry the matter to which they cling along with them. Every body, in its natural condition, possesses both fluids in equal quantities. As long as the fluids are mixed together they neutralize each other, the body in which they are thus mixed being in its natural or unelectrified condition.

By friction (and by various other means) these two fluids may be torn asunder, the one clinging by preference to the rubber, the other to the body rubbed.

According to this theory, there must always be attraction between the rubber and the body rubbed, because, as we have proved, they are oppositely electrified. This is in fact the case. And mark what I now say. Over and above the common friction, this electrical attraction has to be overcome whenever we rub the glass with silk, or sealing wax with flannel.

You are too young to fully grasp this subject yet, and indeed it would lead us too far away to enter fully into it. But I will throw out for future reflection the remark that the overcoming of the ordinary friction produces heat then and there upon the surfaces rubbed, while the force expended in overcoming the electric attraction may be converted into a spark which shall appear a thousand miles away from the place where it was generated.

Theoretic conceptions are incessantly checked and corrected by the advance of knowledge, and this theory of electric fluids is doubted by many scientific men. It will, at all events, have to be translated into a form which shall connect it with heat and light, before it can be accepted as complete. Nevertheless, keeping yourselves unpledged to the theory, we shall find it of exceeding service both in unraveling and in connecting together electrical phenomena.

#### Teaching Power.

We have already fixed upon a unit of measurement for mechanical power. Is it possible to secure a unit of comparison for that intellectual force which we call teaching power? We fear not, although there are enormous differences between the powers possessed by different teachers. Suppose we attempt to define a little more closely, however that is a rather indefinite term "aptitude to teach"!—What is the peculiar something that makes one man a teacher, and the lack of which makes another equally industrious, equally honest and conscientious man, a mere hearer of lessons, a helpless teller, and no teacher at all? Well, we need not expect to tell exactly why one ripe pear is sweet and delicious, while another on the same branch is tasteless as a turnip. There are, however, certain elements of good teaching that may be cultivated and have their power intensified. One of prime importance is the power of arresting attention. Some good teachers do this in one way, some in another; some pleasantly, others with a strong dash of sharpness and acerbity; some quietly and cheerily, others boisterously and with noisy energy, ("poluphloisboi thalasses"), but they all do it by some means. Those who succeed in doing it so that the pupils cannot tell exactly why their attention is sustained, but only that it is constantly sustained, are undoubtedly the most skillful teachers. Also, great forces are seldom noisy. The sun holds the solar system in order and makes no fuss, takes on no upstartish airs, does not even strut and swagger, utters no sound, but goes

on about his business and smiles gladness and good humor into his whole empire. So, we think, all other things being equal, the quietest teacher is the most powerful.

Another chief element of teaching power is the faculty of setting pupils to work for themselves. All education is really and truly self-education. Strictly, and truly, we cannot educate a child at all. We can only put him in the most favorable environment of circumstances, and stimulate him to such mental action as shall lead him to educate himself. Every good teacher has a distinct influence over his pupils in stirring up their curiosity, exciting deep interest in study for its own sake, and in cultivating that love of independent action which leads the pupil to reject assistance until he has exhausted all his own resources in vain. This power soon converts lagging slaves into earnest wide-awake inquirers, emulating each other in the race to be discover truth for themselves. The price of it cannot be found in the market reports, but every one may cultivate it by careful study and keen observation. One main feature of its exercise is the tact necessary to induce pupils to face difficulties with dogged, plodding perseverance, in entire anticipation of the teacher's explanations. Here is the essential point, the very touchstone of good teaching, viz., not only to supply the daily bread of instruction, but also to produce in the pupil a voracious appetite for this very food, ere it is set before him. There is no nausea, no ennui, no lassitude and indifference when the pupil has already grappled with the difficulty, wrestled with it mightily, and found himself just too weak to overcome it.

The highest degree of teaching power may and ought to co-exist with light-hearted cheerfulness. The sour-visaged Pharisee, who is too great a man, too dignified a personage to smile, or perpetrate a little joke now and then, had better take himself off at once. He is not wanted about the school by the pupils. He is the natural born enemy of their frolicsome dispositions. He is an iceberg stranded in a flower garden, chilling all the beauty and brightness out of the happy flowers, and freezing up the music in the very throats of the joyous birds. On the other hand, the flippant chatterbox, whose well-worn witticisms all the class know by heart, who cannot help talking incessantly, will not inspire that earnest enthusiasm which is the soul of all teaching worthy of the name.

The last element we shall touch upon is the marvellous power of laborious industry and patient forbearance. All great movements require considerable time to gather momentum. The touch of genius cannot educate a hearty boy in a day. The work must be measured by years, not by days. The public, and also the teacher himself, must be habituated to patient waiting for fruitful results. "First the blade, then the ear, then the full corn in the ear."—C. CLARKSON.

#### Influence of Character on Education.

"Behind the work of every great orator, artist or poet, there hangs the shadowy prophecy of something nobler unaccomplished, something sublimer unwritten. So in the life of every good teacher there is something better than the lesson he has taught, something nobler than the words of instruction he has spoken. Who has ever walked through the close at Rugby, or seen the oak pulpit rising above the seats in the little chapel, that has not felt the silent presence of one whose life was far better than any lesson in classic lore he ever gave, grander than any sermon he has ever preached. Ah, my friends, this magnetic sympathy is more than intellectual attainment, better than culture, higher than genius. Its allies are the divine and the eternal. Would we know its power we must become humble students of the Divine Master. I once stood at the close of an autumn day, on the top of a lofty eminence, just as the shades of evening were beginning to gather over the landscapes. Before me was spread out that great plain which for thirty-five centuries has been the battle-field of the world—on which Saul and Gideon, the Crusaders and Napoleon, fought for supremacy. Just before me rose the beautiful Mount of Transfiguration; on the left, embosomed in the surrounding hills, lay the quiet sea, on and around which were performed most of the mighty works of him who spake as man never spake. At my right stretched the mountain range on which the prophet of Jehovah confounded the priests of Baal; while directly at my feet lay the little vale where were spent the boyhood and youth of the great Teacher. Soon the darkness of night gathered all around me—Ezraelon, Tabor, Gennesaret, Carmel, Nazareth faded from my sight. But the presence of him whose feet had trodden that plain; whose life is an ever-abiding inspiration; whose star for eighteen centuries has been the light of the world, seemed to overshadow me, while from out the darkness seemed to come the divine words, 'I am the way, the truth, and the life.' Teachers, when at last the shades of night have gathered around us; when the tasks we have given, the lessons we have taught, the words we have spoken, shall have been forgotten, may the silent influence of our lives

remain the bulwark of truth, the evangel of purity, the inspiration of goodness." —*Prof. Blackington at Nat. Ed. Association.*

#### Labor Schools in Europe.

A remarkable report has lately been published by the University of Cambridge, England, on the subject of Industrial Education, from which we make the following interesting extracts:

Promising that since workingmen cannot come to the university, it is the university's duty to go to them, it proposes to open a course of specific training, not for the so-called liberal professions, or for middlemen of any kind, but for the veritable producers—in other words for the working class. This design is worthy of an institution which since the days of the Long parliament, has been outspoken in the expression of popular sympathies and steadfast in promoting reform. Since the decay of the old apprenticeship system very little has been done for the education of labor. It is plain that the establishments known under the name of ragged schools scarcely belong to the class of industrial seminaries. As their title indicates, these industrial institutions receive the children of poor parents, or orphans afford them lodging and nourishment, and employ them in various trades. The extreme youth of these children—they graduate, as a rule, at the age of 15—prevents them from receiving a substantial technical training. On the other hand considerable progress has been made in this direction by certain countries on the Continent, and some examples especially worthy of imitation are pointed in this report.

Industrial schools seem to be quite numerous in the German Empire and Austria, in Denmark, Sweden, Holland and Belgium. They are generally known as "apprentices' workshops," but they combine theoretical with practical instruction, and presuppose graduation from primary schools. In Belgium pupils are admitted from the age of 12, or even earlier, if they can show the requisite measure of elementary knowledge.

In Holland the most important technical academies for the producers are those of Amsterdam. The school for boys, founded in 1864 by the "Society of the Working classes," was designed to train workmen for those trades which are connected with architecture and ship-building. The course of instruction lasts three years, and includes—besides certain studies supplementary of primary requirements—the elements of metrics of mechanics and natural history, the art of drawing, the study of tools and materials, carpentry, masonry, the use of the lathe and the forge. The pupils must be at least thirteen years of age, and have received a good elementary education. They are required to pay an annual fee, which does not exceed, however, \$13. There is likewise a training school for girls in Amsterdam, whose management has been attended with good results, because it has avoided the common error of wasting time on lady-like accomplishments.

In Scandinavia and the German Empire, the apprentice schools differ only in some details of small importance from those above described. We merely note that they are government institutions, whereas in Vienna, Prague, and throughout Austria the industrial academies were created by private enterprise, although they received a subsidy from the State. Passing to other countries, we find the idea of technical training for the working classes has borne but meagre fruit in Switzerland, although the system of rudimentary instruction is singularly efficient.

Notwithstanding many projects brought forward at the epoches of its various revolutions, France, as a nation, has done almost nothing in the way of providing a substitute for the old system of apprenticeship which passed away with the ancient regime. She seems to have taken thought for everything except skilled labor. Her unrivalled assemblage of art, scientific and professional schools is supplemented by a score of special institutions whose graduates are qualified to direct every species of industrial and agricultural enterprise, and by number of business colleges framed on the model of the Ecole Turgot, whose pupils are fitted for the several branches of foreign and domestic trade. But of schools for workmen the State has none, if we except the establishment founded by the Sardinian Government and transferred to France upon the annexation of Savoy and Nice. It is true that a few municipalities have created apprentice schools, but their number is extremely limited. Paris has only one institution of the kind—the apprentice school of the Boulevard de la Villette. This, however, merits special attention, because, according to Professor Stuart, of Cambridge University, it presents the most perfect type of an industrial academy. We may add that at his suggestion a fac simile of it is about to be organized in England.

The simple object of this school, first opened in 1878, is to produce intelligent and skillful workmen. The specific callings for which its pupils are trained are those of workers in iron and workers in wood. Boys are admitted between

the ages of thirteen and sixteen, after an examination which has regard to orthography, arithmetic, and metric system. Not only is tuition gratuitous, but deserving students receive once a fortnight a certain compensation for their labor, varying from forty cents to a dollar. The period of apprenticeship is three years. During the first two years a day's labor six hours in the work shop and five in the class, while for the last year it means eight hours of practice with tools and three hours of study.

During the first twelve-month the pupil passes one or two months alternately in each of the specialties taught, so that he can determine which suits his taste, while the directors can observe his aptitude. Only at the beginning of the second year does the apprentice, with the advice of his parents and teachers, decide upon a given trade, to which thenceforward he devotes himself exclusively.

The creation of this school would have been impracticable during the second empire, and under the existing regime it has encountered many obstacles. Yet its progress has been remarkable. The number of apprentices, which four years ago was seventeen, is now nearly two hundred.

#### The Text-Book Question.

CORONA, L. I., Jan. 10th, 1878.

At the annual meeting of this School District, Oct. 9th, 1877, a series of text-books was recommended to the meeting by the teachers of the school. A committee, for the purpose of examining and selecting a series of text-books to be used in the school, was appointed, and meeting adjourned to Nov. 2nd.

At the adjourned meeting Nov. 2nd, the committee recommended a series of text-books to the meeting, which was lost by one vote. The Trustees who had moved for this committee in this previous meeting, now offered for the consideration of the meeting, Appleton's series of text-books, which was adopted 31 to 6, and the meeting adjourned to Nov. 16th.

At the adjourned annual meeting held Nov. 16th, 1877, a resolution was offered to lay away that list of text-books and to adopt the text-books recommended by the committee of Nov. 2nd, 1877. This resolution was adopted unanimously.

Then Mr. C. W. Brown of D. Appleton & Co., wrote to ask Supt. Gilmour's decision as to the law in the case. He stated that the case was illegal and of no account. On more mature examination when applied to by the Trustees for a decision he reversed this statement to Mr. Brown, and said the change was legally affected.

The law in the case is as follows:

"When a text-book shall have been adopted for use in any of the public or common schools in this State, as provided in the first section of this act, it shall not be lawful to supersede the text-book so adopted by any other book within a period of five years from the time of such adoption, except upon a three-fourths vote of the Board of Education, or of such body as perform the functions of such Board, where such Board has made the designation, or upon a three-fourth vote of the legal voters present and voting at the annual school meeting in any other school district.

When text-books are adopted, (and it must be by a two-third vote according to the first section of the act just quoted) they cannot be superseded within a period of five years from the time of such adoption, *unless* by a three-fourths vote at the annual school meeting.

The following is Supt. Gilmour's decision:—At any annual Meeting a list of text-books when adopted, may be changed by the three-fourths vote of those present and voting upon the question. The meeting held in your district on the 16th of November being an adjourned annual meeting, and the vote to change the text-books having been unanimous, I am of the opinion that the change was legally effected, and that the books recommended by the committee are the ones that should be used in your school. Your obedient servant,

NEIL GILMOUR, Supt.

This seems to settle the matter in Corona. No bigger tempest was ever stirred up by text-books than this.

#### The Value of Training.

EARLY in childhood, habits of self-reliance and self-help may be formed. The child should be taught to amuse itself, to wait upon itself, and to perform services, according to its strength and ability, for others. It is no kindness to a healthful child to wait upon it continually, when it is old enough to wait upon itself.

The very bird knows that. Until their younglings can fly, they bring food and put it in their mouths, but no sooner are they fledged than they are pushed from the nest by the sensible God-taught parent, and compelled to exercise their own powers in taking care of themselves.

It is surprising what mere training will do in developing

talent in children. There are those who have no aptitude for music, but persistent cultivation of the voice and ear does often make very passable musicians of those who seemingly had no talent in that direction. The same is true of drawing and painting. No child in the Boston schools is excused from drawing because he has no liking for the task. Of course, if one loves music or mathematics or geography, he will make easy and rapid advancement in those studies, but the fact that he does not like them constitutes no reason why he should not become more or less proficient in them.

There is no training that can take the place of a good home training. Those boys and girls who are so fortunate as to have fathers and mothers capable of instructing them in the performance of whatever duties, and the acquisition of whatever accomplishments make home a place to be longed for and enjoyed, are indeed fortunate. Their equipment for life is complete.

Special trainings are of great value. A lawyer of several years' standing at the bar in New York in a recent conversation remarked, "I studied law [in a lawyer's office. My brother here, several years younger than myself, went through the law school, and he has so much the advantage of me in consequence of that training, in the studious habits he has formed, in being brought into immediate contact with the best legal minds, in being held to the highest standards, that this fall I shall enter the law school and take the entire course."

Self-made men, so called, subject themselves to the severest training and discipline, and do not avail themselves of collegiate and technical training simply because the force of circumstances prevents them from doing so. There was never an hour in their youth when Henry Wilson and Horace Greeley would not gladly have availed themselves of all the facilities offered by academies and colleges if they could have done so. How carefully they trained themselves.

Skilled labor is wanted everywhere; in the composing-room, in the editorial room, in the shop, at the piano, at the forge, in the kitchen. Skilled labor commands good wages, even in these hard times, but skilled labor comes and can come only by long training.

#### English Titles.

ENGLISH titles are of two kinds; those which are inherited, and descend from father to son, and those which die out with the persons who hold them. One branch of the English Parliament, the House of Lords, is composed almost entirely of men who have become members of it solely by reason of inheriting a title from their ancestors.

One of the English titles which are hereditary, the highest, of course, is that of the King or Queen. Next to this comes the titles of the sovereign's children, brothers and sisters, and other relatives. The sons of the Queen have the title of prince, and when they get to be twenty-one years of age they are created royal dukes, and have a new name added to the title.

For instance, the Prince of Wales, when he came of age, was made Duke of Cornwall, though he is always called by the first designation. Prince Alfred, Victoria's second son, was made Duke of Edinburgh, and Prince Arthur, her third, Duke of Connaught, and they are so called. These titles are hereditary, and will descend to their children.

Next to the royal family come the various titles of the peers of the realm, which means those noblemen who inherit the right to sit in the House of Lords, and there legislate for the empire.

The peers of the realm are divided into five different ranks or grades. Of these, the dukes are the highest, and no English subject can bear a higher title than that of duke. The greatest generals and statesmen have found a dukedom the highest reward for their achievements. Marlborough was made a duke, and so was Wellington. There are now 21 dukes. They are addressed as Your Grace. Their eldest sons are called marquis or earl, as courtesy-titles, and their younger sons have the title of lord before their names. For instance, Lord Charles Wellesley, Lord Wm. Lennox.

The next rank below duke is that of marquis. There are at present eighteen noblemen of this grade, and their sons bear the same grade of courtesy-titles as those of dukes.

The earls come next in dignity, and of these there are no less than 112. The viscounts, who are the fourth in point of rank, comprise twenty-four hereditary nobles, and the barons, who are the lowest order of peers, number 242.

Besides these, there are Scotch and Irish peers, many of whom do not sit in the House of Lords.

The title of baronet is a hereditary one, but baronets are not noblemen, and do not sit in the House of Lords. They are addressed in this way, Sir Wm. Jones, Bart.

Independently of the titles we have described are those belonging to the different orders of knighthood. Of these orders, the Knights of the Garter are highest in dignity, and

## THE MERRY GYPSIES. Words and Music by W. H. WALTER. 81

The musical score for 'The Merry Gypsies' consists of four staves of music with lyrics. The first three staves are in common time (indicated by '2/4') and the fourth staff is in common time (indicated by '4/4'). The lyrics are as follows:

1. Mer - ry gyp - sies all are we, Far from Nor - wood do we come; Thus with cheer - ful song and glee  
 2. Thro' the wood and thro' the wild, O - ver hill and vale we come, Thus we have the hours be - guiled,  
 3. When the moon hangs o - ver - head, And the stars are shin - ing bright, On the heath we make our bed,  
 4. When the morn - ing gilds the sky, Then we rise and haste a - way; O'er the hills and plains we hie,

Chorus (staves 2 and 3):

Oft we wan - der far from home. Tra la la la la, Tra la la  
 Sing - ing in our for - est home. Tra la la la la, &c.  
 Watch - ing through the si - lent night. Tra la la la la, Tra la la  
 Gai - ly sing - ing all the day. Tra la la la la, &c.

these are always nobles of great distinction. They have the right to add the letters K. G. after their names, as, the Duke of Richmond, K. G. Other orders of knighthood are the Thistle, which is a Scotch order, and St. Patrick, an Irish order, entitling the members to use the letters K. T. and K. P., respectively, after their names. These knight-hoods are always conferred upon Scotch or Irish noblemen. There is also the Order of the Bath; this is conferred on a great number of persons, military officers, statesmen, eminent physicians, musicians and artists, and it has various grades. Those who are Knights of the Bath have the title of Sir, like baronets, and use the letters K. B. or K. C. B. after their names; thus Sir Thomas Johnson, K. C. B. None of these titles of knighthood are hereditary.—*Youth's Companion*.

## The Ancient Ruins of Colorado.

Prof. Hayden has given Southwestern Colorado a new interest, by discovering and describing the ancient ruins in that section and in Southeastern Utah. The fertile valleys of the Animas was densely inhabited and highly cultivated by an enlightened race of people centuries ago. The ruins of the houses, corrals, towns, fortifications, ditches, pottery-ware, drawings, non-interpretative writings, etc., show that many arts were cultivated by these prehistoric people which are now entirely lost. Their houses were built of almost every kind of stone, from small bowlders to the finest sand-stone,

The finest of these ruins, and the nearest perfect, are situated about thirty-five miles below Animas City, in a large valley fifteen miles long by seven wide, on the west side of the river. This valley has been covered with buildings of every size, the two largest being 300 by 6,000 feet, and about 300 feet apart. They are built of small blocks of sandstone, laid in adobe mud, the outside walls being four feet and the inside walls from a foot and a half to three feet thick. In the lower stories are found port-holes a foot square. There are rooms now left, and walls for about four stories high are still standing. About the second story, on the west side, there was once a balcony along the length of the building. No signs of a door are visible in the outer walls, and the ingress must have been from the top, in the inside there being passages from room to room. Most of them are small, from eight by ten to twelve by fourteen feet, the doors being two by four feet. The arches over the doors and port-holes are made of small cedar poles two inches wide, placed across, on which the masonry is placed. The sleepers supporting the floors are of cedar, about eight

inches thick, and from twenty to fifty feet long, and about three feet apart. A layer of small round poles was placed across the sleepers, then a layer of thinly-split cedar sticks, then about three inches of earth, then a layer of cedar-bark, then another layer of dirt, then a carpet of some kind of coarse grass. The rooms that have been protected from exposure are white-washed, and the walls are ornamented with drawings and writings. In one of these rooms the impression of a hand dipped in whitewash, on a joist, is as plain as if it had been done only yesterday. In another room there are drawings of tarantulas, centipedes, horses and men.

In some of the rooms have been found human bones, bones of sheep, corn-cobs, goods, raw-hides, and all colors and varieties of pottery-ware. These two large buildings are exactly the same in every respect. Portions of the buildings plainly show that they were destroyed by fire, the timbers being burned off and the roofs caved in, leaving the lower rooms entirely protected. The rock that these buildings were built of must have been brought a long way, as nothing to compare with it can be found within a radius of twenty miles. All the timber used is cedar, and has been brought at least twenty-five miles. Old ditches and roads are to be seen in every direction. The Navajo Indians say, in regard to these ruins, that their fore-fathers came there five old men's ages ago (500 years), and that these ruins were here, and the same then as now, and there is no record whatever of their origin."

THERE are numerous remarkable and historic trees, among which are the bread-fruit tree of Ceylon, the fruit of which is baked and eaten as we eat bread, and is equally good and nutritious. In Barbuta, South America, is a tree which, by piercing the trunk, produces milk, with which the inhabitants feed their children. In the interior of Africa is a tree which produces excellent butter. It resembles the American oak, and its fruit, from which the butter is prepared, is not unlike the olive. The great traveler, Park, declared that the flavor surpassed any made in England from cow's milk. At Sierra Leone is the cream fruit tree, which is quite agreeable in taste. At Table Bay, near the Cape of Good Hope, is a small tree, the berries of which make excellent candles. It is also found in the Azores. The vegetable tallow tree also grows in Sumatra; and the bark of a tree in China produces a beautiful soap. The talipot tree in Ceylon grows to the height of 100 feet, the leaf of which is so large that it will cover nearly twenty people, like an umbrella. The banyan tree is wonderful; it never dies and is constantly extending, for, as the branches shoot down-

ward, they take root, and thus produce other trees, whose branches in like manner extend onward, and resemble large oaks, the fruit of which is much like rich scarlet figs, and furnishes a luxurious subsistence to monkeys and birds of every description. The pipul tree is said to be "the most completely beautiful of all which adorn the wide garden of nature." The Hindoos call it the "tree of God," and the "religious fig," because under its shade they suppose their god Vishnu was born. It is held in such veneration that the form of the leaves is only allowed to be painted on furniture used by their Princes. They plant them as memorials of persons deceased: they serve also for shade for travellers.

A WHALING steamship, the Vega, has been bought for the Swedish Arctic Expedition, which is to start next July from Gothenburg. The vessel is very strongly built, and can carry coal enough for a cruise of 8,000 miles; she is to be supplied with sufficient provisions for three years. Captain Palander will be in command; less than thirty persons will be on board, in all three or four will constitute the scientific corp. The king of Sweden, the Government, Oscar Dickson, of Gothenburg, and Mr. Sibariakov (a Russian), conjointly defray the expenses. The projected voyage will be eastward from Novaya Zemlya, along the Siberian coast, down through Behring Strait; coming back around Asia and via the Suez Canal. This will circumnavigate both Europe and Asia.

COFFEE.—At the time Columbus discovered America, coffee had never been known or used. It only grew in Arabia or upper Utopia. The discovery of its use as a beverage is ascribed to the Superior of a monastery in Arabia, who, desirous of preventing the monks from sleeping at their nocturnal services, made them drink an infusion of coffee, on the reports of shepherds, who observed that their flocks were more lively after browsing on the fruit of that plant. Its reputation spread through the adjacent countries, and in about two hundred years it had reached Paris. A single plant brought there in 1714, became the parent stock of all the French coffee plantations in the West Indies. The Dutch introduced it into Java and the East Indies, and the French and Spanish all over South America and the West Indies. The extent of the consumption now can hardly be realized. The United States alone annually consumes it at the cost, on its landing, of from fifteen to sixteen million dollars.

MR. WILLIAM MIDDLEMORE has provided a play ground for the children of the poor at Birmingham, at an expense of \$60,000. It includes four and a half acres. The same gentleman has maintained for some years a home for the reclamation of what an English exchange calls "gutter children," and has sent some hundreds of them to homes in Canada.

Those answering an Advertisement will confer a favor upon the Advertiser and Publishers by stating that they saw the advertisement in the New York School Journal.

## PUBLISHERS.

REQUA & DUNN,  
43 West 22d Street, New York.

We would respectfully call your attention to the new series of Copy Books, entitled the

## Combined Trial and Copy Page

## Writing Book.

It consists of twelve numbers, analytically, systematically and progressively arranged. The style of letters is the newest and simplest. The best engravers have been employed on the work and the paper is unexceptionable. In each book there are, besides the ordinary copy pages, patented removable Trial Pages, similarly ruled and containing, according to the advancement, either one, two or three lines of the copy in dots to be traced by the pupil. As first efforts are generally imperfect, they can be made on the Trial Page, which may be removed without injury to the book. The benefit of this practice can be tested by the writing on the regular copy page. We would draw particular attention to the blank Trial Pages at the beginning, middle, and end of the books. In the Primary Course they are intended for drilling the scholars in writing their names and the dates. In the Grammar Series dictation exercises may be given, showing the advancement more clearly than in any other manner. In compiling this work the editors, from personal experience and valuable suggestions given them, are assured they have met a need which has long been felt, and they are placing before the public a superior book in all points and details. These books are now on the Supply List of the Board of Education in the City of New York. They are used throughout the Training Department of the Normal College, and have been highly approved and introduced by many Principals in the Public Schools.

The prices are the same as for other writing books.

REQUA & DUNN,  
EDITORS AND PUBLISHERS,  
43 West 22d Street, N. Y.

J. B. LIPPINCOTT & CO.,  
PUBLISHERS, Philadelphia.

Invite attention to the Series of

## WORCESTER'S DICTIONARIES.

Quarto Dictionary. Illustrated. Sheep, \$10.00  
Universal and Critical Dictionary. Svo. \$1.50  
Sheep. . . . . 1.25  
Academic Dictionary. Illus. Crown, Svo. 2.00  
Comprehensive Dictionary. Illus. 12mo. 1.75  
School (Elementary) Diet'y. Illus. 13mo. 1.00  
Primary Dictionary. Illustrated. 16mo .40  
Pocket Dictionary. Illus. 24mo. Cloth, .65

Many special aids to students, in addition to a very full pronouncing and defining vocabulary, make the above-named books, in the opinion of our most distinguished educators, the most complete, as well as by far the cheapest Dictionaries of our language.

VISION, BLAKEMAN, TAYLOR & CO.,  
NEW YORK.  
Publish

Sander's Union Readers.  
New Graded Readers.  
Robinson's Mathematics.  
" Shorter Course in Mathematics.  
Webster's Dictionaries.  
White's Progressive Art Studies.  
Swinton's Histories.  
" Geographies.  
Swinton's Word Book Series.  
Dana's Geology.  
Spencerian Penmanship.  
Gray's Botany, &c., &c.

SEND FOR CATALOGUES.

H. W. ELLSWORTH,  
AHEAD OF ALL IN IMPROVEMENTS  
in Practical Penmanship.  
"The first to introduce the Scale of Thirds in Writing-Book, (1861).  
The first to classify Capitals as Standard, and Business, or Current styles, (1861).  
"The first to prepare a Text-Book on Penmanship, (1863).  
"The first to publish Black-Board Charts of Letters, (1863).  
"The first to issue a PAPER devoted to Penmanship, (1866).  
"The first to popularize Tracing in Copy-Books, (1867).  
The first to found Medals for Improvement in Penmanship, (1876).  
The first to introduce the Reversible Form of Writing-Book, (1877).  
Address CARE OF AMERICAN NEWS CO.,  
Chambers Street, New York.  
" Since followed by competing authors.

POTTER, AINSWORTH & CO.,  
53 and 55 JOHN ST., NEW YORK.  
Publishers of  
Payson, Dunton & Scribner's Copy Books.  
Payson, Dunton & Scribner's New Manual of  
Penmanship.  
Bartholomew's Industrial Drawing Series.  
Industrial Drawing Books.  
Primary Cards, three sets.  
Teacher's Manual or guide to above.  
Guide to Cards.  
The most comprehensive, practical and beautiful  
series yet published.  
Dime-size Graded Blanks.  
No. 1. Words, No. 2. Words and Definitions. No.  
3. Words, Definitions, Sentences.  
The cheapest and best. Retail price 10 cts., introduction price, 7 cts.; full size, first class paper.  
Descriptive Catalogue, with rates of introduction, furnished on application. Correspondence solicited.

POTTER, AINSWORTH & CO.,  
45 John St. N. Y.

CLAXTON, REMSEN and HAFFEL-FINGER, PUBLISHERS, PHILA., PA.

Prof. LABBERTON'S HISTORICAL SERIES

Outlines of History.—Outlines of History; with Original Tables, Chronological, Genealogical and Literary. 1 vol., 336 pages, oblong 8vo, cloth, \$2.00. Historical Questions, Logically Arranged and Divided.

The companion-book to Outlines of History. 1 vol., oblong quarto, cloth, \$1.75.

Historical Atlas, Containing a chronological series of 100 Colored Maps, illustrating successive periods, from the Dawn of History to the Present Day. 1 vol. oblong quarto, cloth, \$3.50.

Historical Chart, or, History Taught by the Eye. Showing at a glance the Rise, Development and Fall of all the important Nations, from the earliest times until the present day. This Chart is published in four distinct forms.

For terms and other information, address the publishers.

J. W. SHOEMAKER & CO., PUBLISHERS

The Elocutionist's Annual.

No. 4, 192 pages, comprising the latest popular readings, recitations, dialogues and tableaux, &c., cloth 75 cts.

Best Things from Best Authors.

Comprising Nos. 1, 2 and 3 of the Elocutionist's Annual (nearly 600 pages) elegantly bound, cloth, \$1.50. Green and gold, \$2.

Oratory.

An oration by Rev. Henry Ward Beecher, delivered before the National School of Elocution and Oratory; paper-binding 15 cts., limp cloth 25 cts. The above publications sent post paid on receipt of price.

J. W. SHOEMAKER & CO., Publishers,

1418 Chestnut St., Phila., Pa.

COLLINS & BROTHER,

PUBLISHERS, 414 Broadway, N. Y.  
Olmsted's School Astronomy (Snell). A Compendium of Astronomy, for schools. By Prof. Olmsted. A new edition, revised by Prof. Snell, 12mo, \$1.00.

Olmsted's College Astronomy (Snell). An Introduction to Astronomy, for college students. By Prof. Olmsted, Yale College. Third stereotype edition. Revised by Prof. Snell, Amherst College. 9vo, \$1.00.

WIDDLETON, W. J.,  
27 Howard St., New York.  
SUPPLET'S TRENCH ON WORDS.

Arranged for Class Book. From the latest revised English Edition. With an exhaustive analysis, additional words for illustration and questions for examination, by Thomas D. Supple, 12 mo, 400 pp; \$1.50.

White's Student's Mythology.—12mo. \$1.35.  
Conington's Aeneid of Virgil.—12mo. \$2.50.  
The Unabridged "Student's Hallam." \$1.75.  
May's Constitution of England. 12mo. \$1.75 vol.

## Educational Weekly.

The union of *The School Bulletin* and  
N. W. *Journal of Education*, Wisconsin.  
The Michigan Teacher, Michigan.  
The School, Michigan.

The Illinois School-Master, Illinois.

The Nebraska Teacher, Nebraska.

Home and School, Kentucky.

The School Reporter, Indiana.

EDITORS.—Prof. Wm. F. Phelps, President State Normal School, Whitewater, Wis., Editor-in-Chief. Prof. Edward Olney, University of Michigan. Ann Arbor. Hon. J. M. Gregory, President Illinois Industrial University, Champaign. Hon. Newton Bateman, President Knox College, Galesburg, Ill.

MANAGING EDITOR.—S. R. Winchell, Chicago.

STATE EDITORS.—One in each of the Western States.

CONTRIBUTORS.—One hundred of the representative educators of the country.

CORRESPONDENTS.—Educators in all parts of the world.

The Strongest Consolidation of Educational Journals ever effected in this Country.

The broadest in its scope; the handsomest in appearance; the most varied in its contents; the freshest, strongest, the latest of the journals of its class. Good for the teacher! Good for the scholar! Good for the citizen! Every department is in the hands of a special editor. Its "Practical Hints and Exercises" are invaluable to the teacher of any grade.

Subscribe for *THE EDUCATIONAL WEEKLY*, and keep yourself informed on educational matters. The educational newspaper is now in demand; educational topics are attracting the public attention more in these days than ever before; new books, new methods, and new theories are demanding the attention of teachers more frequently than once a month, and no teacher who intends to keep up with the times can afford to be without the *WEEKLY*.

## TERMS OF SUBSCRIPTION.

To single subscribers, 1 year, \$2.50; 6 months \$1.50.  
To now subscribers, 3 months on trial, 60 cents.

Eastern Office in charge of Prof. Edward Johnson, 34 Oxford Street, Lynn, Mass.

THE

PRACTICAL TEACHER,  
Enron.—Prof. Wm. F. Phelps, State Normal School, Whitewater, Wis.

A MONTHLY JOURNAL.

Devoted Exclusively to the Practical Work of the Schoolroom. Abounding in Hints, Suggestions, Exercises, Questions, and Answers, Methods of Teaching, Correspondence, News, Dialogues, Music, etc., etc., etc.

Subscription Price, \$1.00 per Year.  
Ten cents a single number. Ten numbers will constitute a year. In clubs of five or more, 75 cents a year.

THE TEACHER will be sent regularly to all who will send us a club of four at \$1.00 each.

SUBSCRIBE NOW.

S. R. WINCHELL & CO.,  
PUBLISHERS,  
170 Madison Street, Chicago, Ill.

## 1877. NEW BOOKS. 1877.

## New Features!

## Better Methods!

1. **Appleton's Readers.** By Wm. T. HARRIS, Supt. of Schools, St. Louis, Mo.; A. J. RICKOFF, Supt. of Schools, Cleveland, Ohio; and MARK BAILEY, Prof. of Elocution, Yale College. (Ready Oct. 1st.)

2. **New American History.** For Schools. By G. P. QUACKENBOS, LL.D. Incomparably superior.

3. **The Model Copy-Books.** In six numbers. WITH SLIDING COPIES. A great improvement. (Ready Oct. 1st.)

4. **Synopsis of General History.** From B. C. 800 to A. D. 1876. Outlined in Diagrams and Tables. By SAMUEL WILLARD, A. M. M. D. (Ready Oct. 1st.)

5. **Krusi's Industrial Drawing Courses.**

1. Textile Designs.
2. Outline and Relief Designs.
3. Mechanical Drawing.

Descriptive circulars, specimen pages, and price lists, forwarded upon application. Teachers will oblige by sending us their post office addresses, for future announcements.

ADDRESS D. APPLETON & CO., Publishers, 549 & 551 Broadway, N. Y.

RIDPATH'S  
U. S. HISTORIES.

Endorsed as THE BEST by Educators everywhere.

## 120,000 COPIES IN USE:

Teachers and School Officers are cordially invited to send specimen pages, including samples of the Maps, Charts, Diagrams, etc.

JONES BROTHERS & CO., Publishers, Cincinnati, Philadelphia, Chicago.

N. TIBBALS & SONS,

37 PARK ROW, NEW YORK.

Have on hand the largest assortment of Theological, College and School books kept in New York.

A large assortment from auction for School, Family and general Libraries. Also Sunday school books from 1 publishers—all on the most favorable terms.

Books sold only by subscription.

Send for catalogues and particulars.

CHEAPEST BOOKSTORE  
IN THE WORLD.

67,432 Magnificent Books

At Our Price

87,432 Beautiful Juveniles

At Your Prices

54,382 Bibles, Prayer Books,

At Any Price.

Special term to Professional People. Catalogues free, send stamp.

LEGGAT BROTHERS,  
3 BEEKMAN STREET, (Opposite Post Office.)

SINGING CLASSES AND CONVENTIONS

There certainly has never before appeared a book of musical instruction and beautiful music, so complete in all its departments as

"THE SONG HERALD."

New Edition Ready. 192 Pages. Price 75 Cents; \$7.50 a dozen.

ARE YOU ONE of the 90 and 9?

This is the title of a new sacred song that is becoming widely popular. It has a thrilling effect when well sung. Price 35 cents.

CHURCH'S MUSICAL VISITOR.

THE INDEPENDENT JOURNAL OF MUSIC.

The new volume, beginning with October number, will excel any of the preceding in every particular. Send stamp for full particulars for the new year, and pray that the Visitor "does actually give over \$20 for \$1.00!" Address

JOHN CHURCH & CO.,

CINCINNATI, OHIO.

And 306 BROADWAY, NEW YORK.

\$10 in \$25 a day sum made by agents selling our

Chromes, Crayons, Pictures and Chromo Cards. 100 samples worth \$4 sent postpaid for 75 cts.

Illustrated Catalogue free. J. H. BUFFORD'S SONS, BOSTON. Established 1852.

## BRAINARD'S

Musical World,  
FOR JANUARY, 1878.

\$1.50 per annum.

Each number contains 36 pages of choice new music and reading matter. The January number begins the fifteenth yearly volume and contains:

COLEEN AVARRA.—An exquisite new song and chorus by Max Vernon. Sells for 35 cents.

SWEET DREAMER.—Beautiful song by Arthur S. Sullivan. A perfect gem. Sells for 40 cents.

FLY AWAY GALOP.—By Charles Kinkel. Easy and pleasing. Sells for 30 cents.

PHANTOM FOOTSTEPS.—Henry C. Work's charming melody easily arranged for piano. Sells for 90 cents.

SONG OF THE ANGELS.—By Gustave Lange. An elegant piano piece. Sells for 50 cents.

But all this choice music is included in the Musical World for January, which sells for only 15 cts. Held by most news dealers, or mailed on receipt of price by the publishers.

For Fifty cents we will send the Musical World four months on trial, or for \$1.50 it will be sent one year post paid together with our premium book of 215 pages, "Musical Hints," by Karl Herz.

We desire an active agent in every town, to whom we offer liberal terms.

The trade supplied by the American News Co., New York or Western News Co., Chicago.

Catalogues of sheet music and music books sent free.

5. BRAINARD'S SONS Publishers, Cleveland, O.

JUST PUBLISHED.

—THE—

## SUNSHINE of SONG,

A bright and sunny collection of New Songs, Ballads and Songs with Choruses, and with Piano or Reed Organ accom'. A book quite American in character, with our own popular composers, and the class of songs that are the greatest favorites.

Uniform in style, binding and price with the "World of Song," "Gems of English Song," and others of the "Library" series, and costs in Boards \$2.50; Cloth, \$3.00; Fine Gilt, \$4.00.

—THE—

## Cluster of Gems,

This is a valuable collection of pieces of a somewhat advanced character as to difficulty, and is suited to the tastes of advanced players. There are 220 pages Sheet Music Size, and the pieces, which average about 5 pages each, are by Leybach, Spindler, Von Willow, Lichner, Rubenstein, Ascher, Oester, and other celebrated composers. Uniform in style, price and binding, with the "Sunshine" described above, and with the 27 other books of the famous "Library" series.

In Boards \$3.50; Cloth, \$3.00; Fine Gilt, \$4.00.

For Sale at all the principal music stores. Will also be mailed, post free, to any address, for the retail price. Change may be sent in postage stamp.

OLIVER DITSON & CO., BOSTON.

843 BROADWAY, SUCCESSORS to LEE & WALKER, Phila.

## POTTER'S AMERICAN MONTHLY

Every Teacher and Scholar, every Reader and Thinker in America should have this peculiarly American magazine; it stands pre-eminent in those features that are most attractive in Magazine literature, and presents a variety and extent of entertaining and instructive articles not approached by any other. No one should miss its Semi-Historic American sketches for 1878.

The coming year will excel in Scientific, Artistic and Literary production, and possess all those emphatic popular tendencies that have made it the

ILLUSTRATED MAGAZINE of the PEOPLE.

Send in subscriptions now.

Three Dollars a year, post-paid.

Representatives of ability wanted everywhere to take permanent agencies and secure handsome pay. Liberal terms for cities. Many are making in spare hours from \$2. to \$5. a day. Address

J. H. POTTER & CO., PUBLISHERS.

227-231 Philadelphia, Pa.

## New York School Journal,

AND

## EDUCATIONAL DIRECTORY.

NO. 17 WARREN STREET, NEW YORK.

PUBLISHED WEEKLY

BY

E. L. KELLOGG &amp; CO.,

AMOS M. KELLOGG, EDITOR.

WILLIAM H. FARRELL, BUSINESS AGENT.

WILLIAM F. KELLOGG, SUBSCRIPTION AGENT.

## TERMS TO SUBSCRIBERS.

Subscription Price \$2.00 per annum in advance. Money should be sent by draft or postal money order. Currency sent by mail is at the risk of the sender.

**Money Remittances.**—Never send us currency in a letter. Always get a postal money order, check or draft on New York; or else send money in a registered letter. Remember that currency sent by mail is at your risk and not ours.

The SCHOOL JOURNAL can be obtained of any news-dealer in the United States. The American News Company of New York, general agts.

We want an agent in every town and village in the U. S. to whom we will pay a liberal commission.

The columns of the JOURNAL are open for the discussion of subjects pertaining to education. Let those who have practical skill communicate it to others.

Should this paper by any means come into the hands of one not a subscriber, we ask you (1) to consider it a special invitation to subscribe; (2) to hand it to a teacher or other person who is interested in education, and urge him to take it also.

NEW YORK, JANUARY 19, 1878.

This copy of the NEW YORK SCHOOL JOURNAL may possibly fall into the hands of one who is not a subscriber; consider then, that a piece of good fortune has befallen you, and send in your subscription at once. If you are teacher and are a subscriber to no educational paper, you do yourself an injury you have no right to do. It may be set down as an undeniable fact that every "live teacher" takes an educational paper. A small fund has been placed in our hands to send the JOURNAL to those who are too poor to afford it; that number we hope is not very large.

THERE is one point in which the Board of Education has made a decided gain, although it gets less money—the money is given in bulk and the Commissions can expend it as they see fit—all for salaries if they choose. There are ways in which decided saving can be made—especially in respect to the incidental expenses of each school. In some way we believe the sum can be so handled that no reduction of salaries need to be made.

WILLIAM WOOD, President of the N. Y. City Board of Education, gives his opinion in a very clear and decided form in favor of "Higher Education." There will be a considerable debate on this subject in this city, for here the system has been fully adopted. The City College and the Normal College furnish free, a complete education for the young man or woman who desires them. The excellence of these institutions is conceded. The point made by those who object, is that "Higher Education" is not necessary to make a good citizen, and that this is all that is proposed by free public schools. Many assaults have been made on this position, and yet a strong body claim that it stands as firm as ever.

If the majority of a community desire the adaption of a "Course of Study" that embraces the higher branches of knowledge, there can be no objection, certainly no more than to other expenditures. The advantage is wholly on the side of the poor, and not of the rich, as is claimed by money. That a city like New York, for example, gets back more than it expends in this direction must be plain to any one who looks into the matter. The cost of the tuition of 2,500 young men and women is about \$250,000 annually or \$100 each; this is probably an over-estimate. It is not a large sum, certainly, when aggregated with

the primary and secondary education as it should be, the cost of each pupil is but slightly raised above what it would be if these higher institutions did not exist.

**THE NEW YORK SCHOOL JOURNAL.** A Splendid Premium: Webster's \$12. *Unabridged Dictionary, free.* The JOURNAL makes to its subscribers this extraordinary offer. It will give them a copy of the great standard Webster's *Unabridged Dictionary*, in leather binding, 1,836 quarto pages, with 3,000 engravings, for twelve subscribers and \$24.—being only twice as much as the cost of the Dictionary alone at any book-store! The papers are started at once on receipt of the money, and the Dictionary is promptly forwarded by the publishers by express. Any one who wants a dictionary can thus easily obtain it. Send on the names as fast as obtained; they need not all come from one Post-office. Or send sixty subscribers to the SCHOLARS' COMPANION at Fifty Cents each.

THE publishers of the NEW YORK SCHOOL JOURNAL desire us to remind subscribers who wish to stop their paper that they should notify them to that effect, as the paper is sent until a discontinuance is ordered. Do not say to the post-man that "your time is run out," etc., and put him to the trouble of notifying us. And, again, do this properly. The right way is to write a letter or postal card—be sure to see that *arrears* are paid up. We notify every one at the time of expiration by sending a bill for the succeeding year in the paper. We have had a few subscribers, who, six months after such a notice send in a request for discontinuance, without settling up the arrears. This is wrong. The great majority do differently; they enclose the amount due, with request for discontinuance. Some are nice and conscientious enough to pay for even one number. The best way is to deal frankly with the publishers. If you cannot pay for it until February, March or May, write to us and say so. There are some who go on year after year and put us to a great deal of trouble. Friends fix these matters right and then go ahead.

## Dr. Lambert.

Mr. T. S. Lambert, late president of the American Popular Life Insurance Company, was lately sentenced to spend five years in the State Prison at hard labor for perjury. Our acquaintance with this gentleman has been exceedingly slight, and we allude to the case only because he has been identified considerably with education, and has been known to a good many of the teachers of the State of New York. When a man goes down some laugh at the figure he makes, some moralize and say "good-enough for him" and others give him a kick. We have neither laughs morals or kicks. He was convicted of perjury in swearing that a report of his Insurance Company was true, when it was false, and yet we doubt whether Dr. Lambert did it because he had an excess of lie in him. He was subjected to the strain of a great temptation and gave way; his sin was a sin of weakness, hence the important place in the Lord's Prayer of "Lead us not into Temptation." During the last twenty years, and notably the last ten, there has been a great struggle to get money; the public have praised the money maker; the trustee and school teacher has held the money getter up an example for the scholars, and visions of wealth have floated before the poorly paid instructor. In the struggle to get this money, so as to own houses, lands, stock, and bonds, so as to put better clothes, furs and jewels on themselves, their wives and children, a good many have been obliged to throw away honesty and straight dealing. Men have found themselves, as the financial storm increased, likely to founder, and rather than do that have preferred to lie. Now a lie under some circumstances is much worse than under others. Dr. Lambert believed he could save his Insurance Company, which was in desperate shreds, by lying and did so. We look at it as an error of judgment rather than of heart in a man who saw no other way out of his straits. Of course he ought not; of course. Yet he has and we do not wish to judge him harshly. What any of us would do in temptation we know not.

Dr. T. S. Lambert has been often seen at the N. Y. State Teacher's Association, beginning in 1851 with a lecture on Physiology; he afterward lectured on the same subject before the County Institute and in 1853 published a Biology which became somewhat popular, also charts. In 1863 the

American Popular Life Insurance Company was organized with him as its president and James Cruikshank as its Secretary, and hence many teachers took out policies. It seemed to have popularity at first, but during the past three years it has had no success and has been unable to meet its death claims. To manage affairs so that the Company should appear to be sound, Dr. Lambert resorted to statements that were deceptive and he was tried and convicted.

Dr. Lambert has lost the sympathy he would have had if he had promptly acknowledged his errors and misstatements. He did not seem to feel that he had grievously erred, and so went to his punishment without carrying the sympathy that went with School Trustee Case a few days previously.

## NEW YORK CITY.

## New York Board of Education.

The Commissioners met Jan. 11, Present. Messrs. BEARDSLEE, BAKER, BELL, HAZELTINE, GOULDING, HALSTED, TRAUD, WALKER, WATSON, WEST, WHEELER, WICKHAM, KELLY, VERMILYÉ, MANNIERÉ, and KATZENBERG.

Absent—Messrs. DOWD, DONNELLY, COHEN, PLACE, and JELLINE.

## COMMUNICATIONS.

The Corporation Counsel Whitney sent in an opinion that the By-Laws of the Board of Education in force in 1877, are not still in force.

From Trustees of the 19th Ward, asking the reconsideration of its action in reference to the transfer of Mrs. Waterman; from 11th, to purchase lot; from 8th, nominating Mrs. E. T. Kilmer for Principal of E. S. 38; from 22nd, asking that Miss O'Keefe's salary be the same for 1878 as in 1877; from 1st, to continue Miss Fanning in office as 5th assistant teacher, also nominating the present teachers in the evening schools to serve until the end of the evening school term.

From Dr. W. M. Pratt, asking payment of \$36.00 for his services on Richard Palmer, a pupil in P. D. G. S. 14. Benjamin Wood and Rev. C. Duffie ask that it be paid from the fine imposed on Miss Meyers.

On the opinion of the Corporation Counsel considerable debate arose. Mr. Watson moved it be laid on the table, as he did not consider it good law. Mr. Kelly said that this was not courteous after having requested an opinion. It was finally ordered to be entered in full on the minutes. Mr. Halsted moved that it be made the special order for the next meeting. Mr. Wickham moved the next meeting take place on the 23rd, to consider the appropriations for 1878, which was adopted.

## RESOLUTIONS.

Mr. Wickham asked that the City Superintendent be requested to report whether in his judgment, there is any necessity for the further continuance of a Senior and Junior Departments in G. S. 41; also whether there is any necessity for a further continuance of G. S. Nos. 5 and 21, and whether a consolidation of the Boys and Girls department in one building, and the primaries in the other cannot be effected without detriment to the school.

Mr. Walker, by resolution, stated that there was in the City Treasury \$9,000 of the appropriation for salaries for 1877 and asked that this be distributed to restore and repaying as far as it will go the percentage deducted from the salaries of teachers in 1877. Adopted unanimously.

## FINANCIAL STATEMENT FOR 1877.

Total Balances for '74, '75, '76.	\$361,751.66
For salaries of Teachers and others	\$2,700,000.
" supplies, rents, fuel, etc.	450,000.
" sites and buildings.	300,000.
" Corporate Schools.	103,000.

\$3,553,000.00

Total. . . . . \$3,914,751.66

## PAYMENTS.

Payments on account of 1875.	\$7,015 00
" 1876.	194,877 35
" 1877.	8,316,889 50

IN 1877.

For salaries of teachers in grammar and primary schools.	2,273,032 08
Salaries of professors, etc., in Normal College.	87,163 10
" teachers, etc., in evening schools	88,597 02
" colored	86,066 80
" superintendents, clerks, etc.	76,554 86
Books and other supplies.	155,231 74
Compulsory education, agents, etc.	19,278 13
Nautical School.	25,908 00
Corporate schools.	103,000 00

Payments for 1877. . . . . \$3,816,889 50

Balance with Comptroller. . . . . 395,822 39

## PRESIDENT WOOD'S ADDRESS, JAN. 9,

before the Board of Education.

Gentlemen—I thank you for this renewed instance of your confidence by electing me for a third time to the office of President.

We have had to struggle during the past year with a reduced budget in the face of a large access of scholars to the schools. For the year 1877, we were allowed \$335,352 less than we asked for.

The only radical change which has taken place in the arrangements for the management of the schools is the abolition for the future of vice-principals in all the departments. This was adopted as a by-law Nov. 7, 1877.

To manage the schools efficiently in 1878, which is really true economy, we asked for \$3,949,800, and were granted \$3,400,000, a reduction of \$549,800.

We were repeatedly assured by members of the Board of Estimate and Apportionment that they were friends and not enemies of the common schools, and that their asking of the expenses could be reduced in any way without impairing their efficiency, was in love, and not from dislike. While the professors do not well agree with the practice, it is satisfactory to learn that Mayor Ely is not in favor of reducing the salaries of teachers.

It is curious to trace the bit-by-bit attacks, upon the efficiency of our Common School system, for I believe that just in proportion to the reduction in our various budgets is the reduction of the efficiency of our schools, looking to the future as well as to the present.

Year.	Asked for.	Granted.	Reduction.	No. Pupils.
1874	\$3,924,500.	\$3,919,086.	\$15,414.	96,249.
1875	8,683,000.	3,583,000.	100,000.	99,090.
1876	8,796,500.	3,653,000.	143,500.	108,690.
1877	8,888,352.	3,553,000.	335,352.	108,270.
1878	8,949,800.	8,400,000.	549,800.	

And thus it appears that while the attendance of scholars has been constantly increasing, the power of this Board to provide additional accommodations for them has been yearly curtailed by the reductions made in the moneys granted for school purposes. The friends of common schools, unsectarian education, under these circumstances, may well feel alarmed and anxious, especially after the blast which Governor Robinson gave in his inaugural message of January, 1877, against the Normal Schools of the State, followed up by his animadversions upon secondary or higher education, at the public expense, in his message of 1st inst.

While every one must allow that primary education is the most important of all the branches, and that no enduring superstructure of higher education can be erected without a thoroughly good foundation of primary instruction, yet in a Republic I think it is the part of wise statesmanship to give the people that secondary or higher education, at the expense of the State or Municipality, which they themselves demand.

In a Monarchy the giving of instruction in the three "Rs" may be all that the State is called upon to see that its subjects shall have, and it was in relation to education in England that Sir Wm. Curtis, Alderman of London, and a boon companion of George the Fourth enunciated his celebrated dictum regarding "reading, 'riting and 'rithmetic." It would be hopeless, there, to bring the different classes or castes of society into the Common Schools, and for in the preservation of a Monarchy with all its different ranks it is perhaps not desirable that the "middle wall of partition" between classes should be thrown down, but in a Republic it is a very different affair. Here we acknowledge no difference of rank, and there is nothing to prevent the children of the rich and the poor, the children of the *direct* and *indirect* taxpayers meeting on terms of perfect equality in the arena of the Common Schools. It should, therefore, be our object to attract the children of the *direct* taxpayer, the children of the wealthier classes, to our Common Schools, and this can only be done by providing them not only with a thoroughly good primary education, but also with the higher branches of education, as is in point of fact done in our Grammar Schools and in our College of the City of New York for young men, and in our Normal College for young women. It is a great mistake to suppose that with thoroughly good schools and efficient colleges, the *direct* taxpayers would be unduly burdened, for they would, in the case supposed, send their children to the Common Schools and colleges, and thereby save the great expense of private tuition.

In order to put an end to jealousy among the citizens of foreign birth resident among us, I would suggest the propriety of considering the abolition of the teaching of German and French in the three upper grades of our Grammar Schools, and the substitution of Latin. Latin would fit both boys and girls for entrance into their respective colleges, and give them a better knowledge of the roots of their own language than either German or French.

Good schools, both for primary and secondary instruction with the two colleges kept up efficiently, would, with *rapid transit*, help to bring back to the city that great middle class which, during the last ten years, has been absolutely squeezed out of it, leaving here only the very rich and the very poor, and it is upon that great middle class, more than upon any other, that the safety and salvation of the Republic depends.

With regard to the primary instruction in our schools, no child should leave them without, as John Bright says, being "able to read, and to comprehend what they read, and to write in such a way that their writing can be read, and to know as much of arithmetic as will enable them to keep an account of those money transactions that they may happen to have in the course of their lives." While, at the same time, all the merit and talent of the city should, by a thoroughly good education, have the opportunity of rising if it desires, and is worthy of rising, and so be a blessing to this city and to our country.

As to future examinations for teachers, I would suggest that in addition to those subjects upon which they are now examined, as set forth in section 28, sub section 4, page 121 of the Manual, candidates should all have to pass an examination in Latin and German or French, which would give our Normal College graduates a better chance for obtaining positions as teachers than they have at present.

I have to reiterate what I said last year, that this Board should at least have a veto on the appointment and transfer of all teachers, with the absolute appointment of principals. We are held responsible for the efficient working of our whole school system, and yet have not at present the appointment of a single teacher.

We should likewise have the power to transfer teachers from ward to ward, and from school to school, should circumstances, which are continually occurring and are familiar to all of us, render such transfer necessary.

As to Ventilation, this direction from Lawrence, Kansas, is highly common-sense. Teachers are required, to give particular attention to the ventilating and warming of their rooms, and always to ventilate, except in summer, by lowering the upper sash of the window, and on no account to suffer the children to sit in draughts of cold air; and as a general rule, to cause all the windows to be opened for the free admission of air at recess, and at no time to raise the temperature of the room higher than 70 degrees Fahrenheit.

Another matter worthy the attention of the Board is the custom prevailing in some of the lower wards and the two upper wards of the city, and also in some others, of appointing teachers educated in the school to which they are appointed, unless, indeed, they have in the interval graduated at the Normal College, and even that exception is of doubtful propriety.

"Home keeping youths have ever homely wits," and it is better that young teachers be taken entirely out of the old ruts to which they have been accustomed.

In conclusion, I would say that perhaps our schools, or at least the good ones, are *too much inspected*. A very cursory inspection of a school of long-standing for *Excellent* scholarship and discipline ought to satisfy the City Superintendent, while on the other hand, "Good, Indifferent, or Bad" schools ought to be visited and revisited either till they are brought up to the mark, or their teachers reported to this Board as incompetent.

The following standing committees were appointed for 1878:

*On Finance*—Messrs. Vermilye, Kelly, Beardslee, Bell, Halsted.

*On Teachers*—Halsted, Kelly, Place, Vermilye, Jelliffe.

*On Buildings*—Watson, Vermilye, Cohen, Manierre, Donnelly.

*On Supplies*—Traud, West, Hazeltine, Katzenberg, Manierre.

*On Auditing*—Dowd, West, Traud, Goulding, Donnelly.

*On By-Laws*—West, Beardslee, Walker, Watson, Donnelly.

*On Sites and Schools*—Jelliffe, Traud, Hazeltine, Manierre, Donnelly.

*On Course of Studies*—Walker, Place, Traud, Wheeler, Watson.

*On School Furniture*—Goulding, Cohen, Jelliffe, Dowd, Katzenberg.

*On Normal College*—Wickham, Halsted, Walker, Place, Bell.

*On Evening Schools*—Beardslee, Wickham, Bell, Place, Halsted.

*On Colored Schools*—Manierre, Dowd, Cohen, West, Katzenberg.

*On Warming and Ventilation*—Katzenberg, Cohen, Goulding, Wheeler, Watson.

*On Nautical School*—Hazeltine, Dowd, Bell, Wickham, Katzenberg.

*On Annual Report*—Wheeler, Walker, Goulding, Watson, Donnelly.

*On Nomination of Trustees*—Place, Halsted, Beardslee, Wickham, Goulding, Kelly, West, Wheeler, Traud.

*On Salaries and Economy*—Kelly, Halsted, Vermilye, Hazeltine, Walker, Wickham, Bell, Jelliffe, Manierre.

## BOOK NOTICES.

**BICKNELL'S SCHOOLS, HOUSES AND CHURCH ARCHITECTURE.** A. J. Bicknell & Co., New York.

This volume contains 23 plates and gives 26 plans and elevations of school houses and 25 plans, views, and sections of low priced churches. Everything that Mr. Bicknell presents to the public is intrinsically valuable. This volume is a contribution to a style of architecture that is really very much needed. The plates exhibit buildings that are within the range of means possessed by districts and small towns, who want a neat tasteful building at a small cost. Many of these have been approved of and are to be seen at Ashburnham, Mass. We believe the volume to be suggestive to all who are about to erect a school house and therefore commend all its features very heartily.

## Protection of Life from Fire.

Every parent should make each person in his house acquainted with the best means of escape, whether the fire breaks out at the top or bottom.

Inmates at the first alarm should endeavor calmly to reflect what means of escape there are in the house. If in bed at the time wrap themselves in a blanket or bedside carpet; open neither windows nor doors more than necessary; shut every door after them.

In the midst of smoke it is comparatively clear towards the ground, consequently progress through smoke can be made on the hands and knees. A silk handkerchief, worsted stocking, or flannel substance, wetted and drawn over the face, permits free breathing, and excludes to a great extent the smoke from the lungs. A wet sponge is alike efficacious.

In the event of being unable to escape either by the street door or roof, the persons in danger should immediately make their way to the front room window, taking care to close the front room window, taking care to close the door after them, and those who have the charge of the household should ascertain that every individual is there assembled.

Persons thus circumstanced are entreated not to precipitate themselves from the window while there remains the least possibility of assistance; and even in the last extremity a plain

rope is invaluable, or recourse may be had to joining sheets or blankets together, fastening one end round the bed-post or other furniture. This will enable one person to lower all the others separately, and the last may let himself down with comparatively little risk. Select a window over the doorway rather than over the area.

Do not give vent to the fire by breaking into the house unnecessarily from without, or if any inmate, by opening the doors or windows; make a point of shutting every door after you as you go through the house. For this purpose doors in closing the staircase are very useful.

Upon discovering yourself on fire, reflect that your greatest danger arises from draft to flames and from their rising upwards. Throw yourself on the ground, and roll over on the flame, if possible on the rug or loose drapery, which drag under you the tablecover, a man's coat, anything of the kind at hand will serve your purpose; scream for assistance, ring the bell, but do not run out of the room or remain in an upright condition.

Persons especially exposed to a risk of their dresses taking fire should adopt the precaution of having all linen and cotton fabrics washed in a weak solution of chloride of zinc, alum, or tung-state of soda.

THERE are 17,000 children between four and six years of age in the public schools of this city.

The bones of Christopher Columbus have recently been found in the Cathedral of San Domingo.

Six of the Pittsburgh (Pa.) railroad rioters were sentenced at Pittsburgh, to terms of imprisonment of from six years and ten months in the penitentiary down to six months in the workhouse. They were also fined from \$500 to \$5,000 each.

In the Netherlands \$20,000 have been subscribed towards the expenses of sending a small, strong sailing ship to the west coast of Spitzbergen, with the object of reaching the mouth of the Yenisei. There is some talk of establishing a station on the north coast of Siberia to make scientific observations.

AN attempt was made by the students to blow up the Mills Seminary, at South Williamstown, Mass. A keg of gunpowder was buried in the cellar, but was discovered and removed. The incendiary students then threw a barrel of hot coals in the cellar to set fire to the building, but without success. Two students, the supposed ringleaders, have been apprehended.

THERE were never so many artists and art students in this city as there are this winter. The older men who have been here for years, and the new men who have just come back from their studies, now find in New York something of the "art atmosphere" whose absence has been hitherto deplored. A Munich master said not long ago that in the course of twenty-five years, German art students would be going to New York to be taught painting. He based his prediction upon the extraordinary ability of the young Americans at work in Munich.

ALREADY the new English system of public education tells favorably on the public morals. In illustration of this, The London *Sunday School Chronicle* quotes Mr. Wetherhead, governor of Holloway Prison, as saying that the number of juvenile criminals has steadily diminished, so that in place of 136 males and 21 females sent to that prison in 1869, there were in 1876 only 28 males and no females. It pays to look after the children. It is cheaper to educate them as scholars than to punish them as criminals. A schoolhouse costs less and does more for the public protection than a jail.

MR. STANLEY proposes that the Congo river be called the "Livingstone," after the famous missionary explorer, who discovered its head waters and gave it the name of "Lualaba." He says that the river affords a water way of 3,000 miles, broken indeed at intervals by rapids, but that it can be made navigable in almost its entire length. Ivory he reports as so abundant in much of the adjacent country that temples or idols, enclosures, and commonest domestic utensils are made of it. The entire plain is also covered with groves of the oil-palm. How to establish trade with the vast regions of Central Africa now discovered, is already the subject of serious consideration.

## Things to tell the Scholars.

THE child can spend but a small portion of his life in the school room; while there, it is of primary importance that he shall be led to acquire all the useful knowledge possible.

A STATUE of Linnaeus is to be erected in the "Hop Garden" at Stockholm. The great naturalist is to appear surrounded by allegorical figures of Botany, Zoology, Mineralogy, and Medicine—the four sciences to which he devoted his attention.

A BOY of sixteen was received into the Leipzig hospital who gradually lost all sense of feeling, and, indeed, all other four senses, except that of sight in the right eye and of hearing in the left ear. The skin of the whole surface of the body was completely insensible to every kind of sensation.

It has been believed for years that a subterranean lake was to be found near Newburyport, Mass. This lead to the sinking of a well, and clear water was found at a depth of fifty feet, in such quantities that there is talk of supplying the city with it.

Prof. Hitchcock, the geologist, has found at Wethersfield Dove, Conn., four fossil bird tracks, measuring a foot from heel to toe, and proportionately wide, which he thinks he must have been made by a bird of at least twelve feet high. When did it live?

EIGHTY-THREE murderers paid the death penalty in this country during the year 1877; and of these forty-seven were white, thirty-four colored, one an Indian, and one a Chinaman. Pennsylvania furnished sixteen, and South Carolina twelve of these penal executions, and New York State but three.

THE average number of drinking saloons throughout the United States is said to be one for every two hundred and eighty inhabitants, counting men, women and children. New York State furnishes 23,854 of these saloons, which is nearly twice the number of any other state. Temperance in this country has plenty of work yet on hand.

THE text books on Natural Philosophy say, that a tallow candle shot from a gun would go through a board. A Mr. Blodell was acting in a drama in a Baltimore theatre. A blank cartridge was fired at him, and a piece of tallow that had adhered to the charge passed through his nose.

BUSINESS DISASTERS.—In the single month of December the total number of failures and assignments reported to the Register in New York was one hundred. In the case of eighty-nine of these failures the liabilities or indebtedness amounted to \$7,704,391, and the assets or means of paying to \$4,118,777. Nearly one-half of the whole indebtedness will thus be a total loss. How truly riches are deceitful! What changes are made by these business disasters in the circumstances and condition of multitudes! What admonitions to all to lay up enduring treasures in heaven, rather than on the earth!

A SPLENDID specimen of a reptile-toothed bird, was found a few months ago at Pappenheim, and was offered at first for about \$6,000 to the Munich Museum, but not purchased. When it was found how exceedingly well preserved it was the price was raised to about \$9,000, and the Germans are greatly congratulating themselves that it has been purchased for a museum at Frankfort, and so will not pass out of the country.

THE ILLINOIS State Teachers' Association at its late meeting formally resolved that "it again endorses, with emphasis and without equivocation, the co-educational system of schools, primary, secondary and university, now in successful operation in this State believing that the true interests—physical, mental and moral, of both sexes are far better observed by this plan than by the system of separate instruction."

THE investigations made by M. Reboux have revealed the probable fact that, at a former period, the bed of the Baltic sea was occupied by an immense forest, which in fact spread over nearly the whole northern continent. Dredging, carried on at a depth of six or seven feet below the sea bottom, has brought to light two species of conifers, a poplar, a chestnut, and various other trees. From the conifers, M. Reboux thinks, ran the resin which, through being buried in the earth, has become changed into amber, the largest quantity of this gum appearing to have been derived from the *Pinus taeda*. More than 200 specimens of objects have been found imbedded in this gum, including insects, reptiles, plants, leaves, grains, shells, fruit, &c.

THE apparatus used in Germany for noting the temperature of the earth is, it appears, of a peculiar construction, as compared with that employed in other countries. It consists principally of rectangular tube buried permanently in the earth, within which five rectangular prisms of wood are placed, one above the other, at different depths in the ground, and which, by a simple arrangement, can be easily and quickly drawn up. Each of these tubes contains a thermometer, and there is a hole in the side of the main tube, opposite to the bulb of the thermometer, where the wood work is cut away, and the opening closed by plate of thin sheet copper, whose temperature may be presumed to be the same as that of the adjacent ground. The depths at which the thermometers' bulbs remain are four, eight, twelve, sixteen, and twenty feet; and, as showing the efficiency and adaptation of this arrangement for the purpose, it is found, as the result of several years' observations, that the time required for heat to penetrate to a depth of one meter is, on the average, twenty-one days.

TIN FROM EARLY BRITONS.—The amount of tin required in ancient times when Egypt, Greece, and Italy were, one after another, in the full glow of their prosperity, must have been great. During preceding times—during what is called

the bronze age—we may pass over all inquiry about the use of it, as bronze was then confined, probably, to the making of small ornaments or weapons for the chase or war. But when, not to speak of all kinds of vessels for domestic use, larger works were undertaken, ranging in from the Colossus of Rhodes down to statuette for a banqueting-room and in number reaching to the extraordinary amount of 3,000 statues in more than one single town in Greece. The demand for tin must have been enormous, for, as Mr. Fortnum tells us in his excellent introduction to the Catalogue of Bronzes in the South Kensington Museum, "the general result of analyses of several examples of Greek and Roman bronze has shown a composition of 88 or 90 parts of copper to 12 or 10 of tin." \* \* \* There seems to be little doubt that the chief district whence the Phoenicians got their tin Britain, lay in the neighborhood of Mount's Bay, in the country between Truro and Land's End. From a well-known passage in Strabo it would seem that the tin in his time, after being melted and refined, was carried to St. Michael's Mount, there to be purchased by the foreign merchants, who then carried it to the neighboring Continent, and conveyed it "across Gaul for about 30 days, to the outlet of the river Rhone."

#### WOODCHUCKS.

We find in the *Albany Journal* the following original composition, which evidently cost its author no small effort to find both ideas and expressions: the double task is plainly seen; now he gets the "happy thoughts," and next the felicitous expression thereof:

Woodchucks is a very curious animal. It is made of hair and eyes and has two front teeth, and can see a man with a gun when the eyes are shut and bolted. I have seen a dog shake a woodchuck till both were black in the face. A woodchuck can snivel up his nose, show his teeth and look as homely as I can without trying. They sit on one end and eat with the other. A woodchuck can get home faster than a gun can shoot. He is round all over, except his feet which are black. When eaten they retain the flavor of their nests, and seem to have been cooked without being pared. A fat woodchuck, when eat properly, is no laughin' matter. They come under the head of "domestic animals," and think there ain't no place like home when a dog goes for one of 'em.

A MAGNIFICENT diamond, weighing 52½ carats, it is reported, was found in the South African diamond fields, in October, in the gully of Dutoitspan. It is said to be a pure white-frosted stone without spot or flaw. The finders refused to take \$15,000 for it. A diamond of 100 carats was found in the Kimberly Mine, but rather inferior in quality.

THE last earthquake at the West is supposed to have radiated from a locality in Nebraska that has been regarded as the site of a volcano. The seat of disturbance is on the banks of the Missouri, in Dixon County, about thirty-six miles from Sioux City. A bluff about 1,100 feet long and 160 feet high sloping at an angle of 60 to 80 degrees toward the river, is at present the place where the phenomena are most exhibited, but other bluffs at a few miles' distance have been similarly affected. Flames sometimes broke forth, occasionally at night steam escaped from crevices. On digging into the bluff, intense heat stopped the work after proceeding a few feet.

#### MORE SATELLITES TO BE DISCOVERED.

An astronomer says that the number of the satellites of the heavenly bodies probably varies in geometrical progression, of which the ratio is two for the great planets from the earth. Thus we have but one moon, Mars twice as many—two; Jupiter twice as many as Mars—four; Saturn twice as many as Jupiter—eight. It may be supposed, according to this, that Uranus has twice as many moons as Saturn—sixteen, and consequently that Neptune has thirty-two—it being impossible to see these owing to the immensity of distance from the earth. M. Frederic Petit, of the Observatory of Toulouse, advocates the existence of a second satellite of the moon, which he believes he has seen several times. If the diameter of the satellites of Mars is as small as reported, such bodies could easily revolve round the moon unnoticed by astronomers on the earth and their presence might account for some of the known irregularities in the moon's motion.

#### The Kindergarten.

The following object lesson is by Miss Hess, a pupil in Mrs. Louise Pollock's Kindergarten Normal Institute in Washington, D. C. It was used in connection with the first gift, the six soft balls of the colors of the rainbow:

"Then, child of the fair earth! which yet  
Smiles with each charm endowed,  
Bless thou his name whose mercy set  
The rainbow in the cloud!"

Good morning, little "smiling faces." I am so glad to see you all here to-day, for I want to tell you the story I promised you yesterday. Another time we must not become so interested in one block lesson, for all else is forgotten. The story I have to tell you is not very long, and is something about the rainbow. How many have ever seen the rainbow? You all have, and you wondered where the beautiful colors came from, didn't you?

Well, we will speak of the sun first, for if it were not for the sun no rainbow would ever appear; you know this to be true, because when it rains after the sun is set, no bow is seen. When we are coming to school in the morning, and see the sun shining on the trees and grass, it looks white to us, but it really contains all the colors. This was proved by Sir Isaac Newton, and you could do the same thing. Some day, when the sun is shining brightly, you take a large piece of pasteboard and make a small hole in it, holding it up so as to face the sun, now darken the room a little, so that only a few rays of light will come through the hole, these rays will pass to the floor and form a spot of white light. Ask mamma please to let you have a glass prism off the glass chandelier and hold it before the hole in the pasteboard, the rays of light will be refracted and spread out in the form of a long band, and instead of being white, will contain all the colors of the rainbow, which are violet, indigo, blue, green, yellow, orange and red.

Now we have found out that the sun contains the rainbow colors, let us find out how the rainbow itself is formed. You have often heard your mamma speak of a sun-shower. Well, we call it that because while the rain falls the sun shines, and when this occurs we most always have a rainbow because the sunlight, containing all the colors, reflects on the little rain drops which form prisms like your little glass, and thus thin out the colors. The red rose looks red because it absorbs all the other colors, and only throws out the red, just so with the blue, orange and other colored objects.

The next time you go down town with mamma, if the sun is shining, stop in front of the Fountain with your back to the sun, and you will see a rainbow in the spray of water.

If it ever rains while the sun is shining, and no bow appears, don't be disappointed, and think we will never see it again—the only reason we didn't see it is because Mr. Sun moved faster than the rain that day, and was too near his rest to reflect his colors.

Mr. Oliver, 103 Beekman St., has made a decided improvement in the household article, a tea and coffee pot. It consists of a cylindrical receptacle, which is screwed to the bottom, and can be removed to allow of cleansing. This centre chamber becomes a strainer and produces fine tea and coffee without failure. And when it is desired to remove the spent leaves or grounds, the cook has only to withdraw a slide from the chamber. This seems a valuable improvement, and as such we commend it to the trial of our readers.

#### Its Value.

The old year is fast coming to close. The troubles and perplexities of 1877 will soon be over; so too will its joys and felicities. As an agent for the good of the upspringing generations, none go beyond the SCHOOL JOURNAL; it has labored unceasingly to benefit those upon whom rest the heavy responsibility of educating our youth. It is more convinced, more assured of its useful work it is day by day. Let all old subscribers be prompt to renew—noting the price to be only \$2.00 this year; let all new subscribers send on at once; you will make no mistake, nor have cause for any regret except that you did not begin before.

The most influential papers in the country commend it. "Is one of the best educational journals."—Appleton's Journal. "The circulation is rapidly increasing, a result due to the excellence of its matter."—Eve. Post. "Replete with matters of interest."—N. Y. Sun. "Is full of interesting matter."—N. Y. Tribune. "Of interest to teachers."—N. Y. Times.

The most prominent educators praise it. "No periodical exceeds it."—Ex-Supt S. S. Randall, N. Y. City. "I heartily recommend it to all teachers."—Supt. Henry Kiddle, N. Y. City. "It deserves the praise and support of the profession."—President Hunter, N. Y. City Normal College. "Able, fresh, lively and practical."—Prof. Edward Brooks, Pa. "It meets my ideas of an educational paper."—Prof. W. F. Phelps, Principal Whitewater (Wis.) Normal School. Says a Principal of one of the Normal Schools in Missouri, "I must have the SCHOOL JOURNAL." Says a county superintendent in Indiana, "Send me the JOURNAL and the bill, no matter what it is." Says Miss Wright, a teacher of 23 years' experience in Illinois, "I get poor pay, but I know too well the value of the JOURNAL to drop it. If I do say say it, I am a good teacher, and have to thank your paper for being so." "Just the thing for teachers." "I do not see how a teacher can do without it." "I always find in it something to give me a better and more hopeful view of my profession." "I wish every true teacher could see it." "I look forward to its visits with pleasure." So say thousands, and so will you when you have been a reader a few months.

# The Scholars' Companion.

This capital paper for the scholars has attracted remarkable attention from those interested in education. Its peculiar fitness for instructing, interesting and amusing the pupils, has brought us the warmest recommendations.

Hon. Henry Kiddle, Esq., City Superintendent of the New York Public Schools, says:

"I have noticed with much interest the announcement that you intend to publish THE SCHOLARS' COMPANION, a paper for youth. I entirely approve of your plan as set forth, and cannot but believe that such a journal will prove a valuable means of improvement to its readers, as well as an important and timely auxiliary to the cause of education. I most cordially wish you success in this interesting enterprise."

William L. Dickinson, Esq., City Superintendent of the Jersey City Public Schools, says:

"I have just read the first number of THE SCHOLARS' COMPANION. I like it, and hope the promise which it gives of amusement and instruction for the pupils of our schools may be followed by a large subscription list. I cordially recommend it to parents and scholars."

Prof. Washington Hasbrouck, President of the New Jersey State Normal and Model Schools, says:

"I am much pleased with the first number of THE SCHOLARS' COMPANION, and think it admirably adapted for the young folks in our schools. It will do much, I think, to create in the minds of the young a taste for good reading. It deserves success, which I hope it may abundantly have."

Henry B. Pierce, Esq., Superintendent of the New Brunswick, N. J., Public Schools, says,

"It would be possible to place a copy of it in the hands of every boy and girl in all grammar and high schools. It would create an interest among parents in the school work of their children, which would generally benefit parents, pupils, and teachers."

Prof. William F. Phelps, President of the Whitewater, (Wis.) Normal School, says:

"It is sprightly and interesting, and will, I trust be welcomed by the grand army of young Americans who are to form 'to-morrow's society.' You have an immense constituency, you know its wants and I wish you eminent success in your praise-worthy efforts to make the pupils of your dear school, wiser, better, and happier."

The New York Tribune says:

"THE SCHOLARS' COMPANION is the name of a new monthly paper, to be devoted solely to things that will interest the pupils of the schools. It promises to give dialogues, recitations, stories pertaining to school life, and the names of those that excel, as well as other features to please this class of readers, and to avoid the vice-approving elements found in many papers prepared for young folks."

## Remember.

1. Its price is only Fifty Cents a year.
2. We want every teacher to see it, and tell his pupils about it.
3. We want an efficient boy or girl in every school to act as agent.

"It is as necessary as a Dictionary."

Address

**The Scholars' Companion,**  
17 Warren Street, N. Y.

## HOUSEHOLD NECESSITY

A BOOK OF  
VALUABLE RECIPES.

**HOUSEHOLD FAMILY DOMESTIC MEDICINAL.**

This book contains an INVALUABLE collection of RECIPES needed in every FAMILY. Sample copies by mail, postpaid for 25 cents. Address FARRELL & CO., 371 Broadway, Brooklyn, New York.

**DRYING.** Staten Island Fancy Dyeing establishment. BARRETT, NEPHES & CO., Office, 5 & 7 John Street, Branch Offices—1142 Broadway, New York; 269 Fulton Street, Brooklyn; 47 North 8th St., Philadelphia; 110 W. Baltimore Street, Baltimore.

**New York Mailing Agency.** with latest improved Newspaper Folding and Mailing Machines. 13 Spruce St. Jas. H. H. H. Manager and Proprietor.

## DIRECTORY TO PRIVATE SCHOOLS.

For Circulars and special information address the NEW YORK SCHOOL JOURNAL.

### New York City.

FOR BOYS.

Thomas R. Ash, Collegiate School, 17 East 16. Geo. W. Clarke, Collegiate School, 40 Washington Sq. H. B. Chapin, Collegiate School, 79 W. 52. Alfred Colvin, Collegiate School, 1267 Broadway. Eliot Charlier, Charlier Institute, 106 W. 59. V. Dabney, University School, 21 East 29. D. S. Everson, Collegiate School, 727 6th Avenue. Eugene Fazandie, Collegiate School, 37 W. 23. S. N. Griswold Music Conservatory, 5 E. 14.

## New York Conservatory of Music,

LOCATED IN NEW YORK ONLY AT  
No. 5 E. 14th st., second door east of 5th Ave.  
(incorporated 1865.)

THIS RENOWNED SCHOOL OF VOCAL AND INSTRUMENTAL MUSIC, Harmony and Composition, Elocution and Oratory, Dramatic Action, Foreign Languages, Drawing and Painting, offers unequalled advantages to pupils, from the first beginning to the finished Artist.

A SPECIAL TRAINING COURSE for Teachers.  
(Classes of Three Pupils, \$10 per quarter.)  
Terms:  $\langle$  Two  $\rangle$  15  $\langle$  Strictly Private Lessons, 30  $\rangle$

The CONSERVATORY remains open the entire year. STUDENTS MAY BEGIN at any time, the Quarter commencing from date of entrance.

SUBSCRIPTION BOOKS Daily from 8 A.M. to 10 P.M.

N. B.—THE NEW YORK CONSERVATORY, located at No. 5 East 14th st., near 6th ave. (the only Chartered Conservatory of Music in the State), is entirely separate and distinct from all other Music Schools which use the same name and methods, evidently with the view of obtaining patronage thereby.

The celebrated Arion Piano is used in the school. Gibbons & Beach, Collegiate School, 444 Fifth Ave. Joseph D. Hull, Collegiate School, 58 Park Ave., J. L. Hunt, Collegiate School, 182 Fifth Ave. M. Maury & J. B. Hays, N. Y. Latin School, 22 East 49.

S. H. Kleinfeld, Kleinfeld's Institute, 1008 3rd Ave. Morris W. Lyon, Collegiate School, 5 East 22.

John McMullen, Collegiate School, 1214 Broadway.

J. H. Morse, Collegiate School, 1267 Broadway.

S. S. Packard, Business College, 866 Broadway.

PACKARD'S BUSINESS COLLEGE, Methodist Building, 866 Broadway, New York. This is a professional school for business training, and is under the personal supervision of its founder and proprietor, Mr. S. S. Packard, who for the past 20 years was associated with Messrs. Bryant & Stratton, and is the author of the "Book-keeping series" which bears their name. The College was founded in 1858, and has made steady progress in utility and public favor, and now stands at the head of this class of schools. The location is unsurpassed; the rooms spacious and elegant; the course of study most thorough and efficient. The rates of tuition have recently been reduced, and pupils can enter at any time. Tuition per term of twelve weeks, \$55.00. Call or send for circular containing full particulars. S. S. PACKARD, Principal.

PAINES BUSINESS COLLEGE, 62 Bowery, corner Canal St. Established 1849. Paine's Uptown College removed to 907 Broadway. Specialties—Book-keeping, Arithmetic, Classics, Rudimentary and Higher English Branches. Writing Lessons \$5.00 per month. Ladies qualified as book keepers and cashiers. Day or evening from 9 A. M. till 10 P. M.

Julius W. Sachse, Collegiate School, 101 West 45.

Miss Warren, School for Boys, 421 6th.

FOR GIRLS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School, 10 Grammercy Pl.

Mme. S. Leas, Young Ladies School, 166 Madison Av.

Mme. C. Mears, Young Ladies School, 222 Madison Av.

Miss Marshall, Young Ladies School, 250 W. 26.

Mrs. Sylvanus Reed, Young Ladies School, 6 E. 53.

Mme. Boston, Young Ladies School, 1 E. 41.

Miss S. B. Spring, Young Ladies School, 121 E. 26.

B. G. Van Norman, Young Ladies School, 212 W. 56.

FOR BOYS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School, 10 Grammercy Pl.

Mme. S. Leas, Young Ladies School, 166 Madison Av.

Mme. C. Mears, Young Ladies School, 222 Madison Av.

Miss Marshall, Young Ladies School, 250 W. 26.

Mrs. Sylvanus Reed, Young Ladies School, 6 E. 53.

Mme. Boston, Young Ladies School, 1 E. 41.

Miss S. B. Spring, Young Ladies School, 121 E. 26.

B. G. Van Norman, Young Ladies School, 212 W. 56.

FOR GIRLS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School, 10 Grammercy Pl.

Mme. S. Leas, Young Ladies School, 166 Madison Av.

Mme. C. Mears, Young Ladies School, 222 Madison Av.

Miss Marshall, Young Ladies School, 250 W. 26.

Mrs. Sylvanus Reed, Young Ladies School, 6 E. 53.

Mme. Boston, Young Ladies School, 1 E. 41.

Miss S. B. Spring, Young Ladies School, 121 E. 26.

B. G. Van Norman, Young Ladies School, 212 W. 56.

FOR BOYS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School, 10 Grammercy Pl.

Mme. S. Leas, Young Ladies School, 166 Madison Av.

Mme. C. Mears, Young Ladies School, 222 Madison Av.

Miss Marshall, Young Ladies School, 250 W. 26.

Mrs. Sylvanus Reed, Young Ladies School, 6 E. 53.

Mme. Boston, Young Ladies School, 1 E. 41.

Miss S. B. Spring, Young Ladies School, 121 E. 26.

B. G. Van Norman, Young Ladies School, 212 W. 56.

FOR BOYS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School, 10 Grammercy Pl.

Mme. S. Leas, Young Ladies School, 166 Madison Av.

Mme. C. Mears, Young Ladies School, 222 Madison Av.

Miss Marshall, Young Ladies School, 250 W. 26.

Mrs. Sylvanus Reed, Young Ladies School, 6 E. 53.

Mme. Boston, Young Ladies School, 1 E. 41.

Miss S. B. Spring, Young Ladies School, 121 E. 26.

B. G. Van Norman, Young Ladies School, 212 W. 56.

FOR BOYS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School, 10 Grammercy Pl.

Mme. S. Leas, Young Ladies School, 166 Madison Av.

Mme. C. Mears, Young Ladies School, 222 Madison Av.

Miss Marshall, Young Ladies School, 250 W. 26.

Mrs. Sylvanus Reed, Young Ladies School, 6 E. 53.

Mme. Boston, Young Ladies School, 1 E. 41.

Miss S. B. Spring, Young Ladies School, 121 E. 26.

B. G. Van Norman, Young Ladies School, 212 W. 56.

FOR BOYS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School, 10 Grammercy Pl.

Mme. S. Leas, Young Ladies School, 166 Madison Av.

Mme. C. Mears, Young Ladies School, 222 Madison Av.

Miss Marshall, Young Ladies School, 250 W. 26.

Mrs. Sylvanus Reed, Young Ladies School, 6 E. 53.

Mme. Boston, Young Ladies School, 1 E. 41.

Miss S. B. Spring, Young Ladies School, 121 E. 26.

B. G. Van Norman, Young Ladies School, 212 W. 56.

FOR BOYS.

Mrs. Anna C. Brackett, Young Ladies School, No. 9 West 39.

Mme. Charbonnier, Young Ladies School, 36 E. 35.

C. H. Gardner, Young Ladies School, 620 Fifth Ave.

Mrs. Griffith, Young Ladies School, 23 W. 48.

Miss S. L. Hendriks, Young Ladies School, 23 W. 42.

Miss M. A. Clark, Young Ladies School, 120 E. 35.

Miss A. Figuera, Young Ladies School, 351 E. 35.

Miss Haines, Young Ladies School,



## REMINGTON. SEWING MACHINES.

No Machine has sprung so rapidly into favor as possessing just the qualities needed in a family Machine—namely: LIGHT RUNNING, SMOOTH, NOISELESS, RAPID, DURABLE, with perfect LOCKSTITCH.

Within the past year important improvements have been added and no trouble will be spared in keeping the REMINGTON ahead of all competitors.

**PRICES GREATLY REDUCED.**  
Agents Wanted in all Unoccupied Territory.

## REMINGTON: Creedmoor Rifle.

VICTORIOUS AT

CREEDMOOR, 1874.  
DOLLYMOUNT, 1875.  
CREEDMOOR, 1876.

## SINGLE AND DOUBLE BREECH LOADING SHOT GUNS.

The best guns for the price ever produced. Universally recommended by those who have used them.

## WEBB'S Patent Cartridge Loader.

The only complete apparatus ever invented, combining in one complete and portable machine all the various implements employed in loading paper and metallic shells.

REVOLVERS, REPEATING PISTOLS, AMMUNITION, GUN MOUNTINGS, IRON AND STEEL RIFLE AND SHOT BARRELS, FOR CUSTOM GUN SMITHS.

Armory Principal Office, Illion, N. Y.

BRANCH OFFICES:

281 & 283 Broadway, New York, Arms and Machines, Boston, 146 Tremont St., Sewing Machines and Arms, Chicago, 237 State St., Sewing Machines and Arms, Baltimore, 47 North Charles St., (Masonic Temple), Sewing Machines and Arms.

## USEFUL PRESENTS.



Boys and Girls  
ARE MAKING MONEY RAPIDLY  
printing Cards, Labels, marking clothing,  
etc.; FAMILY PRINTER and complete  
outfit, by mail, for \$1. Prints 1 line; \$3.  
Dinner, 2 lines; \$4. Labels, 3 lines; \$5.  
IN PRICE \$5 and complete outfit, for \$7.  
Prints 2 lines; \$1.50, 4 lines; \$2.50, 5 lines;  
GOLDING & CO., Fort Hill Sq., Boston.



No EXPENSE, except for ink and paper, after  
which it is a self-acting machine, and can be  
used for printing Cards, Tags, Labels, Circles,  
etc. Every Business Man should have one.  
Outfits from \$1 up  
Send two 2c stamps for new Illustrated Catalogue.  
GOLDING & CO., Mass., Fort Hill Sq., Boston.

## THE TEACHER'S DENTIST.

W. J. STEWART, No 373 W. 23rd St., offers his services to the teachers and others of New York City and vicinity. All branches of the profession attended to at very moderate rates. Special attention paid to filling teeth with the Gold and Platina Alloy stopping. This is in every respect a superior filling, and as durable as gold; it will neither shrink nor corrode. Teeth filled with this material from \$1.00 to \$1.50 according to size. Special rates to teachers. Refers to the editor of the JOURNAL. Cars from all parts of the city pass the door.

**LADIES** can color their own Stockings for less than one cent per pair ANY COLOR or SHADE by the use of our "MAGIC STICK." One removes or changes the color of Dyed, rotted, or Freshwater stockings. It is a fine, thin, flexible, elastic, ribbed, ribbon, or imparts to them a soft, fine, and healthy shade—Little trouble and nominal cost—Sticks of any desired color sent on receipt of 10 cts. 2 different colored sticks \$1. Send stamp for Circular and Sample. KARNEY CHEMICAL WORKS, P. O. Box 812. 50 Courtland Street, New York.

## The Scholars' Companion,

This is the culmination of a NEW IDEA. It is a paper devoted to the interests of the pupils of our schools. It will contain

FRESH DIALOGUES;  
STORIES OF SCHOOL LIFE;  
SCHOOL INCIDENTS;  
THE BOYHOOD OF EMINENT MEN;  
THE NAMES OF MERITORIOUS PUPILS;  
THE BEST COMPOSITIONS;  
LETTERS FROM THE SCHOLARS, ETC.

### Teachers.

THE SCHOLAR'S COMPANION will surely interest the scholar in his school; it will show him the benefit of being a thorough scholar, of being punctual and obedient. The stories will throw a halo around the duties of the school-room. It will supplement what is taught there, and something to say to enliven each study.

### A Necessity to the School-room.

It is specially fitted for those who are in the school-room, whose minds are wakened up by contact with the teacher's mind; it deals with things and thoughts that have their origin in the school-room; it interests its readers in the subject of self-education. It will be found to enforce in an attractive way, the suggestions of the teacher in respect to Manners, Morals, Duty, Studiousness, Punctuality, Obedience, Faithfulness, Perseverance, etc., etc. Like the Dictionaries, the SCHOLAR'S COMPANION will be found *indispensable to the school-room*. This is the language of hundreds of teachers although but three numbers have been issued.

### Pure Reading for the School room.

Your pupils will read, it is part of the duty of the teacher to see that they have pure and instructive reading. There are no small number of papers that pour out a flood of vicious literature that intoxicates and demoralizes the young. The hero disobeys parents and teachers, runs away from school, and yet contrary to God's Law and human experience, succeeds better than the obedient, punctual scholar who stays at home! By encouraging the

### SCHOLAR'S COMPANION.

You will have pure, healthful and helpful reading in their hands. The papers they now buy and hide, and read by stealth, will be driven out as they ought to have been long ago. The teachers must select pure and interesting reading for the scholars or they will select for themselves without judgment.

### Our Plan.

In every school there are boys or girls who need money, and who would make good use of it. The teachers would gladly put them in the way of earning it if they could. We have a sure plan by which they can earn \$5 or more. Let them become agents for the SCHOLAR'S COMPANION. Only one is needed in a school or department. Scholars may address us at once, but they should enclose a recommendation from their teachers as to efficiency, honesty, etc.

Price, . . . . . 50 cts. per year.

### IMPORTANT.

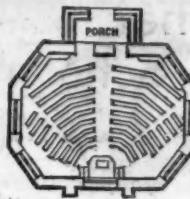
We want to know the best scholars in the schools, those who receive prizes, rewards, medals, etc.; Also those who are champions in Spelling Matches. We want the best compositions for publication, also incidents that show what boys and girls "can do when they try." The teachers will please remember that we ask their hearty co-operation and correspondence in this useful work. Send us fresh dialogues and declamations and any other things you deem valuable. Address

The Scholars Companion,  
17 Warren Street, N. Y.

## Bicknell's School-House and Church ARCHITECTURE.

Containing 23 Plates, showing 24 Plans and Elevations of District, Village and City School-Houses; 26 Plans, Elevations, Views and Sections of medium and low-priced Churches, including a variety of miscellaneous Church Details, etc. Designs to scale. Price, \$3.50

ADDRESS  
E. L. KELLOGG & CO.,  
Nr. 17 Warren Street, New York.



USE  
THADDEUS DAVID'S  
WRITING INK,  
FLUID, SEALING WAX,  
The MUCILAGE, &c.  
Best Known. ESTABLISHED. 1824

## Bryan's Electro-Voltaic and Magnetic Appliance.

This improvement embraces all the effective properties of old inventions without the inconvenience of using vinegar acids or other liquids to set them in motion. The metals are so nicely adjusted that the heat and moisture of the body are sufficient to give the electro-voltaic current, and they are permanently magnetic as long as in good order. They are undoubtedly superior to anything of the kind offered for sale, and meet with the just commendation of our most eminent practitioners. They can be worn night or day by either sex with privacy, and without the least unpleasantness or inconvenience.

THEY ARE SELF-APPLICABLE, AND A SELF-CURE WITHOUT MEDICINE FOR ALL DISEASES ARISING FROM A LOSS VITAL FORCE: DYSPEPSIA, PARALYSIS, RHEUMATISM, EPILEPSY OR HYSTERIA, WEAK LUNGS, GENERAL DEBILITY, KIDNEY COMPLAINTS, IMPOTENCY, WEAKNESS, AND PHYSICAL PROSTRATION.

Pamphlets, with certificates from physicians and persons who have been cured, sent free on application. Dr. J. Bryan will advise free of charge in relation to treatment and nature of appliance. Address, BRYAN APPLIANCE CO., 147E. Fifteenth St., New York

## MISFIT CARPETS.

English Brussels, Three-Ply and Ingrain, also, Stair Carpets, Velvet Rugs, Crumb Cloths, Oil Cloths, etc., very cheap at the Old Place, 112 FULTON STREET, NEW YORK.

Carpets carefully packed and sent to any part of the United States free of charge.

Send for Explanatory Circular.

L. A. BENDALL



THE LLOYD COMBINATION: Pen, Pencil, Rubber and Steel Knife Blade. (Can be closed for the pocket.) Handsomely Nickel-Plated. Sample Post-paid, 25 Cents. Six for \$1.00. Extraordinary inducements to Agents.

J. BRIDE & CO., Clinton Place, New York.

## Mrs. GEORGE VANDENHOEF'S SCHOOL FOR BOYS,

No. 106 WEST 42d STREET, NEW YORK.

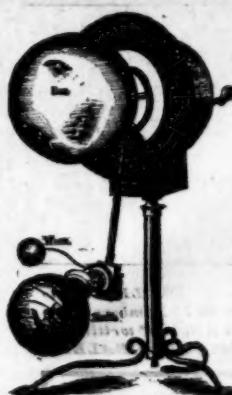
Mrs. Vandenhoff's scheme of education will supply what has been felt to be a great desideratum, namely, the perfect speaking of the English Language with refined pronunciation and a cultivated elocution; also, polished manners and gentlemanly deportment. These essentials cannot have their foundation laid at too early a period in life: well established in boyhood, they become second nature, and are not likely to be rubbed off by after contact with the world.

Tuition, with Board, \$300 per annum, \$400 per season.

## MAGGREGOR HALL, FAMILY AND DAY SCHOOL, FOR YOUNG LADIES AND CHILDREN, FLUSHING, L. I. MISS MARGARET MAGGREGOR, PRINCIPAL.

The course of instruction is comprehensive and thorough, comprising a complete course in all the English branches, Latin and the Modern Languages. Great pre-eminence is assigned to the study of the English language and literature, and the Latin Classics, in this system, while ample facilities are afforded for instruction in all other branches necessary to a liberal education.

The Terms, per annum, for board and tuition in English, French Latin, and drawing, will be \$400.



THE  
Lunatellus  
AND  
Heliotellus

Should be in every  
school, where  
Geography  
is taught, as the  
give so plain an

Objec t  
Lesson

LUNATELLUS.

Sent by Express, \$40, C. O. D.

That any child may  
easily see, and under-  
stand, what many  
graduates have failed to  
comprehend, for  
they move in the  
plane of Ecliptic, and  
when set North to-  
wards the North, always keep so, turn-  
ing from West to East, as in  
the real, with them it is  
easily shown why, so  
much more water is  
around the South  
Pole than the North  
Pole. 62 Illustra-  
tions, 25 Explanations  
go with each one. A  
liberal discount to a  
good Agent.

Address

HENRY  
WHITALL,

HELIOTELLUS.

Sent by Express, \$65, or the two  
for \$100, C. O. D.



"He telleth the number of the stars; he called them  
all by their names."—Psalms cxvii. An enlightened  
example for all to follow.

A Directory of the Starry Heavens that can be set,  
every minute, any day, and on its face read the names  
and see the position of the whole sky at one view. To  
Astronomy what a map is to Geography. The best for  
giving Celestial Object Lessons of Heavenly beauty.  
Send \$6 to your bookseller, or HENRY WHITALL,  
502 South 3d. Street, Camden, N. J., and get by return  
mail, a full set with 99 rules and explanations. Re-  
commended and for sale by all Booksellers.

"I have used Mr. Whitall's Planisphere in my school  
for more than two years, and can teach more of the  
starry heavens from it in one day than I can in a year  
from any other celestial atlas, map, or globe I have  
ever seen.

C. B. METCALF, Highland School Worcester."

HEADQUARTERS

1808

Badges, Medals & Jewelry.

W. A. HAYWARD,

Manufacturing Jeweler,

212 Broadway, over Knox's Hat store.

Will offer his Wholesale Stock of

Badges, Watches, Chains, Lockets, Rings,

Studs and Buttons, Scarf Pins

Bracelets, Brooches, Ear-

Rings, &c., &c.,

at Retail during the Holidays. Parties in  
want of anything in the above line can save at  
least 50 per cent, by coming to Head Quarters.

This Cut Illustrates the Manner of Using

DR. PIERCE'S  
Fountain Nasal Injector,  
OR

DOUCHE.



This instrument is especially designed for the  
perfect application of

DR. SAGE'S CATARRH REMEDY.

It is the only form of instrument yet invented  
with which fluid medicine can be carried high up  
and perfectly applied to all parts of the affected  
nose, passages, and the chambers or cavities com-  
municating therewith, in which sores and ulcers  
frequently exist, and from which the catarrhal  
discharge generally proceeds. The want of suc-  
cess in treating Catarrh heretofore has arisen  
largely from the impossibility of applying  
remedies to these cavities and chambers by any of the  
ordinary methods. This obstacle in the way of  
effecting cures is entirely overcome by the inven-  
tion of the Douche. Its use is pleasant and so  
simple that a child can understand it. Full and  
explicit directions accompany each instru-  
ment. When used with this instrument, Dr.  
Sage's Catarrh Remedy cures recent attacks of  
"Cold in the Head" by a  
few applications.

**CATARRH**

**SYMPOMS**—Frequent  
headache, discharge falling into throat, some-  
times profuse, watery, thick, mucous, purulent,  
offensive, etc. In others, a dryness, dry, water-  
less, weak, or inflamed eyes, stopping up an obstruction  
of nasal passages, ringing in ears, deaf-  
ness, hacking and coughing to clear throat,  
ulcerations, sores from ulcers, voice altered,  
nasal twang, offensive breath, impaired or total  
deprivation of sense of smell and taste, dizziness,  
mental depression, loss of appetite, indigestion,  
enlarged tonsils, tickling cough, etc. Only a few  
of these symptoms are likely to be present in any  
case at one time.

Dr. Sage's Catarrh Remedy, when used  
with Dr. Pierce's Nasal Douche, and accom-  
panied with the constitutional treatment which  
is recommended in the pamphlet that wraps each  
bottle of the Remedy, is a perfect specific for this  
loathsome disease. It is mild and pleasant to  
use, containing no strong or caustic drugs or  
poisons. The Catarrh Remedy is sold at 50 cents,  
Douche at 50 cents, by all Druggists.

DR. PIERCE, M. D., Prop'r,  
BUFFALO, N. Y.

What will the Weather be To-morrow.  
**POOL'S SIGNAL SERVICE BAROMETER,**  
OR STORM GLASS AND THERMOMETER COM-  
BINED, WILL TELL YOU.

It will detect and indicate  
correctly any change in the  
weather 12 to 48 hours in ad-  
vance. It will tell what kind of  
a storm is approaching, and  
from what quarter it comes—  
invaluable to navigators. Far-  
mers can plan their work accord-  
ing to its predictions. It will  
save fifty times the cost in a sin-  
gle season. There is an accu-  
rate thermometer attached,  
which alone is worth the price of the combination. We  
will send it FREE to any address on receipt of \$2. This  
great Weather Indicator is endorsed by the most eminent  
Physicians, Professors, and Scientific Men of the  
day to be the **BEST IN THE WORLD.**

Beware of imitations, none genuine without our  
Trade Mark. Every instrument warranted **PROTECT**  
and **RELIEVE.** When you order, please state your P.  
O. address, and mention the name of Express Co., and  
their nearest office to your place. Post Office Money  
orders or Registered Letters may be safely sent at our  
risk. We make good all damage that occurs by  
shipping.

Agents wanted. Send stamp for circular. Exclusive  
control of territory granted. Manufactured only  
by the

U. S. NOVELTY CO.,  
325 Broadway, New York.

Please mention this paper.

AYER & SON'S MANUAL

For Advertisers  
A complete guide to advertisers. New Haven Commercial—  
the most complete and reliable work of the kind.

Publishers—Send free to  
N. W. AYER & SON, AGENTS, TIMES BUILDING,  
PHILADELPHIA. Get our Estimate before making any advertising  
contract. Our business is large. Facilities unsur-  
passed. Prices the lowest. Terms the best.

BUCKEYE BELL FOUNDRY.  
Established in 1837.  
Superior Bells of Copper and Tin, mounted  
with the best of brass, zinc, tin, chrome,  
brass, copper, iron, and steel. Clocks,  
Clocks, Bells, Farms, Factories, Court-houses, Fire  
Alarms, Tower Clocks, etc. Fully Warranted.  
Illustrated Catalogue sent Free.



GLENN'S  
SULPHUR SOAP.

A STERLING REMEDY FOR DISEASES AND  
INJURIES OF THE SKIN; A HEALTHFUL  
BEAUTIFIER OF THE COMPLEXION; A  
RELIABLE MEANS OF PREVENTING AND  
RELIEVING RHEUMATISM AND GOUT, AND  
AN UNEQUALED DISINFECTANT, DEODO-  
RIZER AND COUNTER-IRRITANT.

Glenn's Sulphur Soap, besides eradicating local diseases of the skin, banishes defects of the complexion, and imparts to it gratifying clearness and smoothness.

Sulphur Baths are celebrated for curing eruptions and other diseases of the skin, as well as Rheumatism and Gout. Glenn's Sulphur Soap produces the same effects at a most trifling expense. This admirable specific also speedily heals sores, bruises, scalds, burns, sprains and cuts. It removes dandruff and prevents the hair from falling out and turning gray.

Clothing and linen used in the sick room  
is disinfected, and diseases communicable by  
contact with the person, prevented by it.

The Medical Fraternity sanction its use.

Prices—25 and 50 Cents per Cake; per  
Box (3 Cakes), 60c. and \$1.20.

N.B.—Sent by Mail, Prepaid, on receipt of price, and  
5 cents extra for each Cake.

"HILL'S HAIR AND WHISKER DYE,"  
Black or Brown, 50 Cents.

C. N. CRITTENTON, Prop'r, 7 Sixth Av., N. Y.

JUST PUBLISHED.

WOOLLETT'S

Villas and Cottages,

OR

Homes for All.

A BOOK FOR THE PEOPLE.

SHOWING PLANS, ELEVATIONS AND VIEWS  
OF TWELVE VILLAS AND TEN COTTA-  
GES, BEING A COLLECTION OF DWEL-  
LINGS SUITED TO VARIOUS IN-  
DIVIDUAL WANTS AND AD-  
APTED TO DIFFERENT  
LOCATIONS.



(Reduced cut of Perspective View, Plate 28.)

This is the most picturesque and pleasing work issued,  
adapted to the public wants. One Vol., oblong 8vo,  
of forty 8 x 12 plates.

Cloth, mailed, postpaid to any address on re-  
ceipt of price..... \$3.00.

CONTENTS.

Design  
No.

VILLAS.

- PLATE 1. Basement, 1st and 2d story plans of a Frame Villa. Scale indicated on plate.
- PLATE 2. Perspective view.
- PLATE 3. Perspective view, Frame Village House. Plans similar to Design No. 1.
- PLATE 4. 1st and 2d story plans of a Brick Villa. Scale indicated on plate.
- PLATE 5. Front elevation of Villa. Scale indicated on plate.
- PLATE 6. Perspective view.
- PLATE 7. Ground and 2d floor plans of Brick Villa. Scale indicated on plate.
- PLATE 8. Perspective view.
- PLATE 9. 1st and 2d floor plans of a Frame Villa. Scale indicated on plate.
- PLATE 10. Front elevation.
- PLATE 11. 1st and 2d story plans of a Frame villa.
- PLATE 12. Perspective view.
- PLATE 13. 1st and 2d story plans of a Frame villa.
- PLATE 14. Front elevation.
- PLATE 15. Perspective view of a Villa. Plans similar to Design 1.
- PLATE 16. 1st and 2d story plans of Brick Villa. Scale indicated on plate.
- PLATE 17. Perspective view.
- PLATE 18. 1st and 2d story plans of a Brick Villa. Scale indicated on plate.
- PLATE 19. Perspective view.
- PLATE 20. Perspective view of Brick villa. Plans similar to Design 10.
- PLATE 21. 1st and 2d story plans of Frame Villa. Scale indicated on plate.
- PLATE 22. Perspective view.

Design  
No.

COTTAGES.

- Plate 23. 1st and 2d story plans of a Frame Cottage. Scale indicated on plate.
- Plate 24. Perspective view.
- Plate 25. Perspective view of Frame Cottage. Plans same as Design 12.
- Plate 26. 1st and 2d story plans of a Frame Cottage. Scale indicated on plate.
- Plate 27. Front elevation.
- Plate 28. Perspective view.
- Plate 29. 1st and 2d story plans of a Frame Cottage. Scale indicated on plate.
- Plate 30. Perspective view.
- Plate 31. 1st and 2d story plans of a Brick Cottage. Scale indicated on plate.
- Plate 32. Perspective view.
- Plate 33. 1st and 2d story plans of a Brick Cottage. Scale indicated on plate.
- Plate 34. Perspective view.
- Plate 35. 1st and 2d story plans of a Frame Cottage. Scale indicated on plate.
- Plate 36. Perspective view.
- Plate 37. Perspective view of Cottage. Plans similar to Design 1.
- Plate 38. Perspective view of Cottage. Plans similar to Design 1.
- Plate 39. 1st and 2d story plans of a Brick and Frame Cottage. Scale indicated on plate.
- Plate 40. Perspective view.

Address  
NEW YORK SCHOOL JOURNAL OFFICE,  
17 Warren St., N. Y.

## STEINWAY

### Grand, Square, & Upright Pianos.

In order to protect the public against imposition, and as a rebuke to unscrupulous advertisers the Judges on Pianos at the Centennial Exposition, 1876 (in addition to the two awards, one for the best pianos, and the other for the best piano-forte material, decreed to Steinway & Sons by the United States Centennial Commission) have given to Steinway & Sons the following

#### CERTIFICATE:

"This is to certify that the piano-fortes of Messrs. STEINWAY & SONS, comprising Concert and Parlor, Grand, Square and Upright, exhibited by them at the Centennial Exposition at Philadelphia, in 1876, presented the greatest totality of excellent qualities and novelty of construction, and in all points of excellence they received our highest average points, and accordingly our unanimous opinion concedes to Messrs. STEINWAY & SONS 'Highest degree of excellence in all their styles.'

Extracts made and copied from the note books of the examining Judges, duly certified by them, reveal the significant fact that their ratings on each and every style of piano-forte exhibited by Steinway & Sons were far above all other competing exhibitors, and reached a

#### GRAND TOTAL AVERAGE OF

95% OUT OF A POSSIBLE 96.

THE next highest exhibitor's average only

90% OUT OF A POSSIBLE 96.

The above certificates can be seen at our warerooms.

**Steinway & Sons,**  
WAREROOMS—STEINWAY HALL,  
109 & 111 East 14th Street, N. Y.

### A GREAT OFFER for HOLIDAYS!

We will during these HARD TIMES and the HOLIDAYS dispose of 100 NEW PIANOS and ORGANS, of first class—makers at lower prices for cash, or Installments, or to let until paid for, than ever before offered. WATERS' Grand Square, and Upright PIANOS & ORGANS, are the BEST MADE, warranted for 5 years. Illustrated Catalogues Mailed. Great inducements to the trade. A liberal discount to Teachers, Ministers, Churches, Schools, Lodges, etc. PIANOS, 7-octave, \$140; 7 1/2-octave, \$150. ORGANS, 2 stops, \$48; 4 stops, \$53; 7 stops, \$65; 8 stops, \$70; 10 stops, \$85; 12 stops, \$90; in perfect order, not used a year. Sheet music at half price. HORACE WATERS & SONS. Manufacturers and Dealers, 40 East 14th St., N. Y.

#### TESTIMONIALS.

The New York Times says. Waters' Orchestration Chime organ is a beautiful little instrument, simply perfect. The chime of two and one-half octave bells, and the artistic effects capable of being produced by the player are singularly fine.

The tone is full, clear and resonant, and a very interesting effect is produced with the chime of bells.—Christian Union.

The Waters' pianos are well known among the very best. We are enabled to speak of these instruments with confidence, from personal knowledge.—N. Y. Evangelist.

We can speak of the merits of the Waters' pianos from personal knowledge, as being of the very best quality.—Christian Intelligencer.

**PIANOS.** Magnificent Grand New \$650 rose-wood Pianos only \$175, must be sold. Fine Rosewood Upright Pianos little used, Cost \$500, only \$125. Parlor Organs 2 Stops \$45. Stops \$65 12 Stops only \$78. Nearly new 4 set Reed 12 stop sub Bass and Coupler Organ \$55 cost over \$350. Lowest Prices ever offered; sent on half month test trial. You ask why I offer so cheap? I answer Hard Times. Our employees must have work, the result, war commenced on me by the monopolist. Battle raging. Large Illustrated Paper Free. Address DANIEL F. REAT-  
TY, Washington, New Jersey. 324-261

### PIANOS & ORGANS.

LICHTE and ERNST,  
(Sole Successors to LIGHT & BRADBURY.)

Manufacturers of first class Pianofortes. Established 1840. Special rates to Teachers on easy Monthly Payments. Warerooms No. 12 East 14th Street, between Broadway and 5th Avenue. Also Sole Agents for Smith's celebrated American Organs.

### HYGIENIC UNDERGARMENTS

For ladies and children. These received the highest Centennial Award. The Judges' report highly commends them. They are all patented. Mrs. H. S. Hutchinson's is the original and only store entirely devoted to the manufacture and sale of these garments in this city. There are many spurious patterns that look like them; but these are the only ones that absolutely give health and comfort to the wearer, their sole solace. Circulars sent free on application.

Be sure and apply to

**Mrs. H. S. HUTCHINSON,**  
6 East 14th Street.

### SELF-SUPPORTING DRAWERS!

#### A GREAT IMPROVEMENT.

WALGROVE'S patented, vertical, self-supporting DRAWERS. Pants cannot fit well without them. Just as cheap and far superior to any other. \$25-18. WALGROVE'S, 55 Nassau Street, N. Y.

\$66 a week in your own town. Terms and \$5 outfit free. H. HALLETT & CO., Portland, Me.

100 Page Book. List of 3,000 Newspapers. How to advertise. Send 25 c. to G. P. Howell & Co.

### QUAKER CITY ORGAN CO.,



Manufacturers of every variety of

### REED ORGANS,

and Dealers in

### PIANOS.

As early as 1859 a Medal was awarded Wm. F. Kennedy, the present manager, for the best instrument, by the State Agricultural Society of New Jersey, and wherever exhibited since have taken first premiums.

Prominent among their many advantages is a round full tone, very deep and powerful, yet sweet and sympathetic, with effects of rare beauty and originality, the prettiest in design and most perfect in touch and finish of any organ ever manufactured. The manufacturers of this unrivaled instrument, in order to more generally to introduce their organs, have made the GENERAL PUBLIC the unprecedented offer:

"They will, where the have no resident agent, make the deduction usually made to their agent, and upon receipt of a duplicate Postal Money Order, or a Banker's Duplicate Certificate, stating that the purchaser has deposited to their credit the price of the organ ordered, send it on five days' trial, when, if it does not prove as represented by them, the purchaser may return it at the company's expense and withdraw the deposit from bank or post-office.

Schools, Teachers, Churches, Sunday Schools and Individuals, will receive the Agent's Commission where purchases are made direct from the Factory, if we have no agent in the place. ORGANS SENT ON TRIAL WHERE TERMS OF SALE ARE AGREED UPON IN ADVANCE. Every instrument fully warranted for five years. Correspondence solicited. Agents wanted everywhere. Address the

**Quaker City Organ Company,**  
222 Market St., Philadelphia, Pa.

#### USE THE

### STAR LETTER & COPYING BOOK,

Two letters written at the same time without the use of the Pen, Ink, or Press. Best Manifold Book ever offered the public. Every book complete with stylus and carbon paper. Price \$1.00 for sample book. Send for price list. To be had of all stationers. YOUNG, ELLIS & MACDONALD, 59 Beckman Street, N. Y.

### DYSPEPSIA CURED FREE.

A person suffering from Dyspepsia or indigestion will be cured by using

#### Dr. Willard's Compound Powders!

Send for a trial package, it costs nothing, and will cure you. Address DIBBLE & CO., Chemists, 1855 Broadway, New York.

**RAND EDUCATIONAL EXCURSION TO**  
EUROPE, in the summer of 1878, visiting Ireland, Scotland, England, France, Belgium, the Rhine, Switzerland, Italy and the Paris Exposition. Russells, address For C. E. TOURJEE, Music Hall, Boston.

### CHEAP APPARATUS for SCHOOLS PHILOSOPHICAL. CHEMICAL. OPTICAL.

#### —NOW READY—

Complete sets of Prof. Tyndall's Electric Apparatus consisting of 58 various instruments and materials, Price, \$55. Tyndall's Manual, \$1.00. These sets are suitable for students at home, at school, and especially for the Common Schools. Be sure to send for price list (free) of the above set, to be followed by similar cheap collections to illustrate other branches of science. All kinds of physical apparatus and instruments imported or made to order.

**CURT W. MEYER.**  
14 BIBLE House, New York.

**B. G. BURROWS.**  
PRACTICAL

### JOB PRINTER,

734 Market Street, Philadelphia.

Mercurial and Fancy Work of every description neatly and promptly executed at low prices. Orders by mail promptly filled.

**FASHIONABLE CARDS,** no two alike, with name, 10c. 30 scroll, with name, 10c. post paid. Agents' outfit, 10c. G. E. REED & CO., Nassau, N. Y.

### JOSEPH GILLOTT'S STEEL PENS.

The well-known numbers, 303-404—170-351-332, and his other styles can be had of all dealers.

**JOSEPH GILLOTT & SONS,**  
91 John Street, New York.  
HENRY HOE, Sole Agent.

### SPENCERIAN STEEL PENS

Of superior ENGLISH manufacture; in 15 Numbers; suited to every style of writing.  
For sale by ALL DEALERS.



### THE WONDERFUL PEN-HOLDER!

**NO INK REQUIRED.** We have invented and patented (July 17, 1877) a Penholder which contains a lid which will last years! and with which any pen can be used! Once dipping in WATER will write a page! sample, post-paid, 25 cents, or Holder and Box of SIX Extra Inks, 50 cents. Extraordinary inducement to those out of employment.

**J. T. HILLIER,** 306 Broadway, New York.

"The Christian Union," of Sept. 5, 1877, says: "It is all it claims to be. We speak from a practical experience, for this notice is written with one of these pens, and we propose to carry it all the time."

**Hawkes' Patent and only Perfect Fountain Pen in the World!** One filling will write from 10 to 15 Hours. THE HOLDER CONTAINS THE INK. 350 & 400 from 10 to 15 Hours.

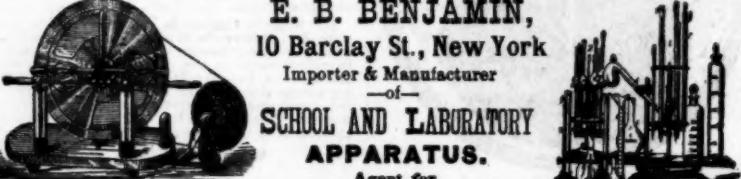
THE ORIGINAL AND ONLY MANUFACTURER OF THIS STYLE OF PEN.

The highest CENTENNIAL AWARD for GOLD PENS, PENCILS and FOUNTAIN PENS

**GEO. F. HAWKES,** MANUFACTURER

No. 86 Nassau Street, New York

Send Stamp for Circular.



**ANALYTICAL BALANCES AND WEIGHTS;** Improved HOLTZ ELECTRIC MACHINES, \$25 each, giving 5-inch sparks; non-blistering PLATINUM. Received First Prize at Philadelphia for "APPARATUS of excellent design and finish, and rare and pure CHEMICALS." Large cloth-bound Catalogues, \$1.50 each. *N.B.—I have no partner in business.*

### OF SPECIAL INTEREST TO TEACHERS AND PROFESSIONAL MEN,

And to all who, in consequence of overwork, or any other cause, find themselves suffering from a gradually increasing brain and nervous exhaustion, and who feel that they are slowly losing vitality and the power to do their best.

### THE Compound Oxygen Treatment.

**COMPOUND OXYGEN** is an agent which acts on scientific principles, and in complete harmony with natural laws and forces. It assists nature to remove the effete carbonaceous matters which have accumulated in the system in consequence of our bad habits of respiration, and thus restores to her the normal control of all the vital activities.

**COMPOUND OXYGEN** does not cure by the substitution of one disease for another, as when drugs are taken, but by an orderly process of re-vitalization. To the overworked Student or Professional Man, who finds himself slowly vitality and his power to his best, Compound Oxygen offers an almost certain means of relief and restoration.

Consumption, Chronic Cæsarr, Ossæa, Asthma, Dyspepsia, Diabetes Paralysis, and some of the most painful Nervous Disorders have yielded, in a very large proportion of cases, to its re-vitalizing and curative powers.

**WHO HAVE BEEN CURED BY COMPOUND OXYGEN?** We could give the names of a large number of persons in all parts of the country, who have found relief and cure in this new treatment, but have only room for the following, to whom, by permission, we here refer: Hon. S. FIELD, Judge of the United States Supreme Court, and his accomplished wife; Mrs. HALLIT KILBURN; Judge SAMUEL MITCHELL, of New York; Hon. MONTGOMERY BLAINE; Ex-Governor BOREMAN, West Virginia; Hon. WILLIAM D. KELLEY; T. S. ARTHUR; Gen. FITZ HENRY WARREN.

The case Mr. T. BARTHOL, the well known American author, is a most remarkable one, as will be seen from the following, which is taken from *Arthur's Illustrated Home Magazine* of July, 1877. He says:—"Nearly seven years have passed since we began using this treatment. Up to that period our health had been steadily declining; not in consequence of any organic disease, but from overwork and consequent physical and nervous exhaustion. The very weight of the body had become tiresome to bear, and we required our days of earnest literary work as gone forever. But almost from the very beginning of our use of the Compound Oxygen, an improvement began. There was a sense of physical comfort and vitality not felt for years, and this slowly but steadily increased. Literary work was resumed in a few months, the mind acting with a new vigor, and the body free from the old sense of weariness and exhaustion. A better digestion, an almost entire freedom from severe attacks of nervous headache from which we had suffered for twenty years, and from a liability to take cold on the least exposure, were the results of the first year's use of the new treatment; and this benefit has remained permanent. As to literary work in these years, we can only say that it has been constant and earnest; and if its acceptance with the public may be regarded as any test of its quality, it is by far the best work that we have done."

**OXYGEN HOME TREATMENT.** This can be sent any distance in a small and compact package. Price for two months' supply, with inhaling apparatus, and full and explicit directions, \$15.00.

**STARKEY & PALEN.** A treatise on Compound Oxygen, its mode of action and results, to which are appended a large number of testimonials to most remarkable cures, will be sent free by mail to all who write to us for it.

**STARKEY & PALEN.** 1112 GERARD ST., Philadelphia, Pa.

**G. E. STARKEY, A.M., M.D.** 335-345-350-355-360-365-370-375-380-385-390-395-400-405-410-415-420-425-430-435-440-445-450-455-460-465-470-475-480-485-490-495-500-505-510-515-520-525-530-535-540-545-550-555-560-565-570-575-580-585-590-595-600-605-610-615-620-625-630-635-640-645-650-655-660-665-670-675-680-685-690-695-700-705-710-715-720-725-730-735-740-745-750-755-760-765-770-775-780-785-790-795-800-805-810-815-820-825-830-835-840-845-850-855-860-865-870-875-880-885-890-895-900-905-910-915-920-925-930-935-940-945-950-955-960-965-970-975-980-985-990-995-1000-1005-1010-1015-1020-1025-1030-1035-1040-1045-1050-1055-1060-1065-1070-1075-1080-1085-1090-1095-1100-1105-1110-1115-1120-1125-1130-1135-1140-1145-1150-1155-1160-1165-1170-1175-1180-1185-1190-1195-1200-1205-1210-1215-1220-1225-1230-1235-1240-1245-1250-1255-1260-1265-1270-1275-1280-1285-1290-1295-1300-1305-1310-1315-1320-1325-1330-1335-1340-1345-1350-1355-1360-1365-1370-1375-1380-1385-1390-1395-1400-1405-1410-1415-1420-1425-1430-1435-1440-1445-1450-1455-1460-1465-1470-1475-1480-1485-1490-1495-1500-1505-1510-1515-1520-1525-1530-1535-1540-1545-1550-1555-1560-1565-1570-1575-1580-1585-1590-1595-1600-1605-1610-1615-1620-1625-1630-1635-1640-1645-1650-1655-1660-1665-1670-1675-1680-1685-1690-1695-1700-1705-1710-1715-1720-1725-1730-1735-1740-1745-1750-1755-1760-1765-1770-1775-1780-1785-1790-1795-1800-1805-1810-1815-1820-1825-1830-1835-1840-1845-1850-1855-1860-1865-1870-1875-1880-1885-1890-1895-1900-1905-1910-1915-1920-1925-1930-1935-1940-1945-1950-1955-1960-1965-1970-1975-1980-1985-1990-1995-2000-2005-2010-2015-2020-2025-2030-2035-2040-2045-2050-2055-2060-2065-2070-2075-2080-2085-2090-2095-2100-2105-2110-2115-2120-2125-2130-2135-2140-2145-2150-2155-2160-2165-2170-2175-2180-2185-2190-2195-2200-2205-2210-2215-2220-2225-2230-2235-2240-2245-2250-2255-2260-2265-2270-2275-2280-2285-2290-2295-2300-2305-2310-2315-2320-2325-2330-2335-2340-2345-2350-2355-2360-2365-2370-2375-2380-2385-2390-2395-2400-2405-2410-2415-2420-2425-2430-2435-2440-2445-2450-2455-2460-2465-2470-2475-2480-2485-2490-2495-2500-2505-2510-2515-2520-2525-2530-2535-2540-2545-2550-2555-2560-2565-2570-2575-2580-2585-2590-2595-2600-2605-2610-2615-2620-2625-2630-2635-2640-2645-2650-2655-2660-2665-2670-2675-2680-2685-2690-2695-2700-2705-2710-2715-2720-2725-2730-2735-2740-2745-2750-2755-2760-2765-2770-2775-2780-2785-2790-2795-2800-2805-2810-2815-2820-2825-2830-2835-2840-2845-2850-2855-2860-2865-2870-2875-2880-2885-2890-2895-2900-2905-2910-2915-2920-2925-2930-2935-2940-2945-2950-2955-2960-2965-2970-2975-2980-2985-2990-2995-3000-3005-3010-3015-3020-3025-3030-3035-3040-3045-3050-3055-3060-3065-3070-3075-3080-3085-3090-3095-3100-3105-3110-3115-3120-3125-3130-3135-3140-3145-3150-3155-3160-3165-3170-3175-3180-3185-3190-3195-3200-3205-3210-3215-3220-3225-3230-3235-3240-3245-3250-3255-3260-3265-3270-3275-3280-3285-3290-3295-3300-3305-3310-3315-3320-3325-3330-3335-3